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06/25/99

Jc583 U.S. PTO

**EXPRESS MAIL LABEL NO.: EJ238216510US****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>APPLICANT:</b>	<i>S. MOORE (Tel.: 203-426-9214)</i>	<b>ART UNIT:</b>	2514
<b>APPLICATION SERIAL NO.:</b>	<i>Continuation-In-Part filing of U.S. Pat. Appl. No. 08/581,804</i>	<b>EXAMINER:</b>	<i>Mark Tremblay (Tel.: 703-305-5176) (Fax: 703-308-7723)</i>
<b>FILING DATE:</b>	02 JANUARY 1996	<b>DOCKET NO.:</b>	122995-43-34.2
<b>TITLE:</b>	<i>Method and Apparatus for Purchased Product Security</i>		

**CERTIFICATE OF MAILING**

I hereby certify that this paper (along with any referred to as being deposited) was deposited with the United States Postal Service on the date shown with sufficient postage as EXPRESS MAIL in and envelope addressed to:

*Box: Patent Application; Commissioner of Patents and Trademarks, Washington, D.C. 20231.*

June 25, 1999

Date

Steven J. Moore

(Type or Print Name of Mailer)

*Steven J. Moore*

(Signature of Mailer)

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**CONTINUATION-IN-PART TRANSMITTAL UNDER 37 C.F.R. §1.62**

Sir:

Transmitted herewith for filing is the continuation-in-part application of pending prior application Serial No. 08/581,804, filed on 02 January 1996, of

Jc525 U.S. PTO  
09/344010

06/25/99

09344010 062599

**STEVEN JEROME MOORE**

Inventor(s)

for:

**METHOD AND APPARATUS FOR PURCHASED PRODUCT SECURITY**

Title of the Invention

1. ☐ Enclosed is an assignment of the invention to \_\_\_\_\_.
2. ☒ A verified statement to establish small entity status under 37 CFR 1.9 and 1.27 is enclosed.
3. ☒ The filing fee is calculated below:

	(Col. 1)	(Col. 2)	SMALL ENTITY			OTHER THAN A		
<u>FOR</u>	<u>NO. FILED</u>	<u>NO. EXTRA</u>	<u>RATE</u>	<u>FEE</u>	<u>or</u>	<u>RATE</u>	<u>FEE</u>	
Basic Fee	////////	////////	////	<b>\$380</b>	<u>or</u>	////	<b>\$760</b>	
Total Claims	7-20 = * 0	x \$11 = 0			<u>or</u>	x \$22 =		
Ind. Claims	5-3 = * 2	x \$39 = 78			<u>or</u>	x \$82 =		
<input type="checkbox"/> Multiple Dependent Claim Presented								
				+ \$135 =	<u>or</u>	+ \$270 =		
				<u>TOTAL = \$458</u>	<u>or</u>	<u>TOTAL = \$</u>		

\* If the difference in Col. 1 is less than zero, enter "0" in Col. 2.

4. ☐ Please charge our Deposit Account No. \_\_\_\_\_ in the amount of \$40.00 for recordation of Assignment. Two copies of this sheet are enclosed.

5. ☐ The Commissioner is hereby authorized to charge any additional filing fees required under 37 CFR 1.16 and/or extension fees under 37 CFR 1.17 associated with this communication or credit any overpayment to Deposit Account No. \_\_\_\_\_. Two copies of this sheet are enclosed.
6. ☐ An Extension of Time to respond to FINAL OFFICE ACTION dated \_\_\_\_ in U.S. parent application Serial No. \_\_\_\_\_ filed \_\_\_\_\_ is requested. The required fee, indicated below, is enclosed herewith.

Extension for response (check only one):

		<u>SMALL ENTITY</u>		<u>OTHER THAN A SMALL ENTITY</u>
Within first month	<input type="checkbox"/>	\$ 55	<input type="checkbox"/>	\$ 110
Within second month	<input type="checkbox"/>	200	<input type="checkbox"/>	400
Within third month	<input type="checkbox"/>	950	<input type="checkbox"/>	475
Within fourth month	<input type="checkbox"/>	755	<input type="checkbox"/>	1510

(Check and Complete the next item, if applicable)

- 7a. ☐ An extension for \_\_\_\_ months has already been secured and the fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.
- ☐ The request for extension of time to be filed in the prior application is attached, as well a copy of the same for the Continuation-In-Part Application.

Extension fees due with this request \$55 or

- 7b. ☐ In the event that an extension of time is required, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fees for extension of time.

7c. (X) TOTAL FEE DUE IS

Filing fees: **\$458**


Extension fee (if any): **\$0**

TOTAL FEE DUE: **\$458**

8. (X) An oath or declaration (X) is, ( ) is not, enclosed.
- 9a. ( ) Transfer the drawings from the prior application to this application and abandon said prior application as of the filing date accorded this application.
- 9b. (X) EIGHT (8) sheets of drawings are enclosed.
- 9c. (X) 40 Page Application is enclosed (including Abstract of Invention)
10. ( ) Applicant claims priority in this application under 35 USC 119 based on application Serial No. \_\_\_\_\_ filed in \_\_\_\_\_ on \_\_\_\_\_. A certified copy of that application was filed in the parent application Serial No. \_\_\_\_\_ on \_\_\_\_\_.
11. ( ) A second duplicate copy of this letter is enclosed for filing in the original application file.
12. (X) Please address all further communications to:

**STEVEN J. MOORE**  
**58 BUTTERFIELD ROAD**  
**NEWTOWN, CT 06470**

Date: June 25, 1999

By:  (STEVEN J. MOORE)  
 APPLICANT

Enclosures

**EXPRESS MAIL LABEL NO.: EJ238216510US****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>APPLICANT:</b>	<i>S. MOORE</i> (Tel.: 203-426-9214)	<b>ART UNIT:</b>	<i>2514</i>
<b>APPLICATION SERIAL NO.:</b>	<i>CONTINUATION IN PART OF:</i> <i>08/581,804</i>	<b>EXAMINER WITH RESPECT TO</b>	<i>Mark Tremblay</i> (Tel.: 703-305-5176) (Fax: 703-308-7723)
<b>FILING DATE:</b>	<i>02 JANUARY 1996</i>	<b>DOCKET NO.:</b>	<i>122995-43-34.2</i>
<b>TITLE:</b>	Method and Apparatus for Purchased Product Security		

**CERTIFICATE OF MAILING**

I hereby certify that this paper (along with any referred to as being deposited) was deposited with the United States Postal Service on the date shown with sufficient postage as EXPRESS MAIL in an envelope addressed to:

BOX: PATENT APPLICATION, ASSISTANT COMMISSIONER OF PATENTS, WASHINGTON, D.C. 20231

*STEVEN J. MOORE*  
(Type or Print Name of Mailer)

*JUNE 25, 1999*  
Date of Mailing

*Steven J. Moore*  
(Signature of Mailer)

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) and 1.27(b)) - INDEPENDENT INVENTOR WITH  
RESPECT TO CONTINUATION-IN-PART APPLICATION UNDER 37 C.F.R. §1.62**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled: **METHOD AND APPARATUS FOR PURCHASED PRODUCT SECURITY** described in:

- ( X ) the specification filed herewith  
 ( X ) Application Serial No.: 08/581,804 filed: January 2, 1996 (parent of this CONTINUATION-IN-PART APPLICATION UNDER 37 C.F.R. §1.62)  
 ( ) Patent No. \_\_\_\_\_, issued \_\_\_\_\_.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below.

- ( ☒ ) no such person, concern, or organization  
 (    ) persons, concerns or organizations listed below\*

\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

---

NAME:  
ADDRESS:

( ) INDIVIDUAL ( ) SMALL BUSINESS CONCERN ( ) NONPROFIT ORGANIZATION

NAME:  
ADDRESS:

( ) INDIVIDUAL ( ) SMALL BUSINESS CONCERN ( ) NONPROFIT ORGANIZATION

NAME:  
ADDRESS:

( ) INDIVIDUAL ( ) SMALL BUSINESS CONCERN ( ) NONPROFIT ORGANIZATION

NAME:  
ADDRESS:

( ) INDIVIDUAL ( ) SMALL BUSINESS CONCERN ( ) NONPROFIT ORGANIZATION

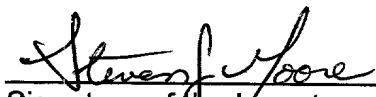
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I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME/ADDRESS OF INVENTOR (INDIVIDUAL):

**STEVEN J. MOORE**  
**58 BUTTERFIELD ROAD**  
**NEWTOWN, CT 06470**

  
\_\_\_\_\_  
Signature of the Inventor

JUNE 25, 1999  
DATE

**EXPRESS MAIL LABEL NO.: EJ238216510US**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

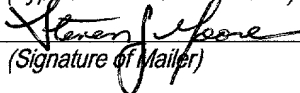
<b>APPLICANT:</b>	S. MOORE (Tel.: 203-426-9214)	<b>ART UNIT:</b>	2514
<b>APPLICATION SERIAL NO.:</b>	Continuation-In-Part filing of U.S. Pat. Appl. No. 08/581,804	<b>EXAMINER:</b>	Mark Tremblay (Tel.: 703-305-5176) (Fax: 703-308-7723)
<b>FILING DATE:</b>	02 JANUARY 1996	<b>DOCKET NO.:</b>	122995-43-34.2
<b>TITLE:</b>	Method and Apparatus for Purchased Product Security		

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BOX: PATENT APPLICATION; ASSISTANT COMMISSIONER OF PATENTS, WASHINGTON, D.C. 20231

June 25, 1999  
Date

Steven J. Moore  
(Type or Print Name of Mailer)  
  
(Signature of Mailer)

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

**PRELIMINARY AMENDMENT TO CONTINUATION-IN-PART  
APPLICATION FILED CONCURRENT HERewith  
AND RESPONSE TO OFFICE ACTION OF MARCH 26, 1999**

In response to the Office Action mailed on March 26, 1999 (such Office Action being referred to as the "Office Action" below), and in consideration of the continuation-in-part application filed concurrently herewith, Applicant respectfully requests that the Amendments below be entered and that Applicants' remarks and arguments be considered:

**PRELIMINARY AMENDMENT**

The Examiner is respectfully requested to make the following amendments to the application as pending before the Office:



In The Specification:

- **PLEASE ADD AT THE BEGINNING OF THE SPECIFICATION:**

“This application is a continuation-in-part of application Serial No. 08/581,804, having a filing date of January 2, 1996, now abandoned.”

In The Claims:

In order that Applicant may pursue other embodiments of the present invention (without increasing the filing fees with respect to the continuation-in-part application by including the prior claims), Applicant respectfully requests:

- **PLEASE CANCEL ALL CLAIMS WITHOUT PREJUDICE AND ADD NEW CLAIMS 48 - 67**

Applicant asserts that cancellation of the claims is made without prejudice and reserves all rights to prosecute the canceled claims, and other disclosed embodiments in the application, in future continuation applications, re-examination applications and any application claiming priority from or through the present application.

**NEW CLAIMS**

48. A computer-assisted method of recording the identity of a purchaser of a particular good in a retail setting comprising:

accepting from a purchaser at retail sale a good encoded with a good identifier identifying the manufacturer of a particular good and containing identification characters unique to the particular good, enclosed in a package having a visible electronically-readable coded form package identifier correlatable with said good identifier, said package identifier identifying the type of good, the good's

manufacturer, as well as identifying the unique identification characters on said good;

accepting from said purchaser of said good an identity card housing electronically-readable personal identification information;

inputting by an electro-optical reader said personal identification information from said identity card into electronic storage at the point of retail sale of said good;

inputting by an electro-optical reader into said electronic storage said visible electronically-readable coded form package identifier at the point of retail sale of said good in tandem with said input of said personal identification information;

correlating said personal identification information with said package identifier in a computer database.

49. The method of claim 48 further comprising the step of transferring said correlated data to a shared database with other retailers.
50. The method of claim 48 further comprising the step of: providing said encoded good identifier to the purchaser in electronically readable coded form on a document for further recordation of a subsequent purchaser of said good.
51. The method of claim 50 further comprising the step of: printing said package identifier and said personal identification information on a sales receipt in electronically readable coded form at the point of retail sale of said good.
52. The method of claim 48 wherein the good identifier is invisible in visible light.
53. The method of claim 48 wherein the identity card is a self-authenticating electronically-readable coded identity card.

54. The method of claim 48 wherein the identity card is a microcircuit technology card.

55. A process for encoding a product with an identifier uniquely correlatable with said product:

encoding a good with an invisible good identifier in electronically-readable coded form, said good identifier identifying the manufacturer of a particular good and containing identification elements unique to the particular good;

on said good or the packaging of said good, placing a package identifier, in visible electronically-readable coded form, which is correlatable with said invisible good identifier, said package identifier identifying the type of good, the good's manufacturer, as well as the identification elements unique to the particular good.

56. The process of claim 55 wherein the invisible encoding of the good identifier is performed below the surface of a material comprising the good.

57. The process of claim 55 wherein the good identifier's position on the good is associated with the lot in which the good was manufactured.

58. The product of the process of claim 55.

59. The method of claim 55 wherein said visible electronically-readable package identifier which is placed on said good or the packaging of said good further identifies the type of good, the good's manufacturer, and its manufacture or origin of manufacture.

60. A computer-assisted method of identifying a record owner of the product, or part thereof, of claim 58 comprising:

obtaining the good of such product;

determining the unique invisible good identifier encoded on the good;

inputting said good identifier along with the type of good and the good's manufacturer into a data processor operatively connected with a data base housing purchaser identity information correlated to good identifiers found on goods;

retrieving purchaser identity information correlated with said good identifier in said data base;

determining the identity of the purchaser(s) of said good from said purchaser identity information.

61. A computer-assisted method of recording the identity of a purchaser of a good purchased through a data processing telecommunications network comprising:

receiving over a data processing telecommunications network a computer data signal comprising digital information relating to the order of a good, the identity of the orderer of the good, and the address to which the orderer of the good desires the good to be transmitted, said computer data signal being transmitted from said orderer's computer to the computer of a purveyor of said good;

transmitting from said purveyor's computer in response to said offerer's order a computer data signal comprising a request for said good to a remote computer located at a site remote from the purveyor's computer, said remote computer being located at a site at which such good is physically available as a product comprising said good, and a package surrounding said good, said package having a package identifier in electronically-readable coded form correlatable with the unique good identifier;

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receiving a computer data signal from said remote computer comprising digital information with respect to the package identifier and correlating said package identifier digital information with said digital information pertaining to the identity of the offerer and the address to which the offerer desires the good to be transmitted.

62. A computer-assisted purchase and sale method comprising:

accepting from a purchaser at the time of purchase of a good digital identification information identifying the purchaser and a contact address of said purchaser;

correlating in a relational database said purchaser digital identification information with an identifier associated with the good purchased by said purchaser;

accessing a relational database correlating said identifier with one or more associated characteristics of said good;

accessing the same or different relational database which correlates associated characteristics of goods with secondary purveyor(s) proffering good or services directed to such associated characteristics and a contact address of said secondary purveyors;

determining from the identifier associated with said purchased good secondary purveyor(s) of good or services directed to associated characteristics of the purchased good;

proffering the purchaser by way of said purchaser contact address good or services proffered by said secondary purveyor(s) which are related to associated characteristics of the purchased good;

62. A computer-assisted purchase and sale method comprising:

contacting said secondary purveyor(s) by way of said secondary purveyor(s)  
contact address to inform said secondary purveyor(s) of the purchaser's response  
to said proffer.

63. The method of claim 62 wherein the identifier associated with the good being  
purchased is selected from the group consisting of: a unique product identifier, a  
unique package identifier, a product information identifier.
64. The method of claim 62 wherein the computer-assisted method entails use of the  
data processing telecommunication network.
65. The method of claim 63 wherein the data processing telecommunication network is  
the Internet.
66. A method for encoding concealed unique identifiers on products comprising:
- directing one or more high energy electromagnetic waves at a material in a  
molten or semi-molten state such that the wave(s) substantially converge at a  
point within the material;
- altering the convergence point of said high energy electromagnetic wave(s) such  
that the three-dimensional structure of the molten or semi-molten material is  
disrupted such that an unique identifier is formed;
- using the solidified material in the construct of a product.
67. The method of claim 66 wherein the molten or semi-molten material is a plastic.

## **REMARKS**

### **PRESENT APPLICATION**

Claims 48 - 67 are now in this application. Claims 1 - 7 were deleted, without prejudice, in Applicant's "Response to April 9, 1997 Office Action." Claims 9 - 17 were deleted, without prejudice, in Applicant's "Preliminary Amendment and Response to Office Action of December 2, 1997 And To Communication From Examiner Dated July 21, 1998." Claims 18 - 30 were deleted in Applicant's "Response to Office Action of November 19, 1998." Claims 8, 31 - 47 have been deleted herein, without prejudice, in order assert certain other embodiments of the invention in preference thereto. Applicant respectfully traverses the Examiner's rejections with respect to each of Former Claims 8, 31 - 47, and asserts the right to seek such claims in subsequent amendment, re-examination or in any other application claiming priority from or through the pending application.. Reconsideration of the Examiner's rejections and of the claims, as amended, is respectfully requested.

### **RESPONSE TO OBJECTIONS**

Former Claim 45 was objected to as being dependent upon a rejected base claim (Page 6, Lines 25 - 27 of the Office Action). Applicant respectfully traverses the objection on the ground that the base claim as drafted is allowable. However, as Claim 45 has been canceled herein, Applicant asserts that such objection is obviated.

## RESPONSE TO REJECTIONS

### 35 U.S.C. § 103(a) Rejections

The Examiner has rejected Former Claims 31 - 47 under 35 U.S.C. § 103 as being unpatentable over the art of record. Former Claims 31 - 37 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,521,815 to Rose, Jr. in view of U.S. Patent No. 5,337,361 to Wang et al.. Former Claim 38 was rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,521,815 to Rose, Jr. in view of U.S. Patent No. 5,337,361 to Wang et al. and further in view of U.S. Patent No. 5,083,814 to Guinta et al. Former claims 42 - 43 and 46 - 47 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,521,815 to Rose, Jr. in view of U.S. Patent No. 5,083,814 to Guinta et al. Former Claim 44 was rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,521,815 to Rose, Jr. in view of U.S. Patent No. 5,083,814 to Guinta et al., and further in view of U.S. Patent No. 1,364,025 to Billings.

Applicant respectfully disagrees with the Examiner's rejections and traverses the same on the basis that the claims assert matter which is not taught, implied, suggested or made obvious over the art of record. Applicant respectfully further argues that the rejection of Former Claims 31 - 47 is obviated by cancellation, without prejudice, of the same. In order to expedite this case, however, Applicant sets forth remarks with respect to the patentability of the present claims, and responds to the Examiner's characterization of the teachings of the prior art of record in regard to Former Claims 31 - 47.



Summary of Prior Art Cited Against Canceled Claims 8 and 31 - 47

The Examiner cites four references as making one or more of Former Claims 31 - 47 obvious: (1) U.S. Patent No. 5,521,815 to Rose, Jr., (2) U.S. Patent No. 5,337,361 to Wang et al., (3) U.S. Patent No. 5,083,814 to Guinta et al., and (4) U.S. Patent No. 1,364,025 to Billings. A brief synopsis of each of the references follows:

(1). U.S. Patent No. 5,521,815 to Rose, Jr. discloses a uniform system for verifying and tracking articles of value, which are defined as items which generally are insured (See, e.g., Col. 6, Lines 55 - 57; Col. 8, lines 16 - 17; Col. 17, Lines 51 - 52). Articles of value are described as being items such as cars and boats ( See, e.g., Col. 5, Lines 32 - 33), which generally carry serial numbers placed thereon by the manufacturer, and items such as artwork and antiques and real estate, which generally do not carry serial numbers (See, e.g., Col. 17, Lines 20 - 21 and Line 31; Col. 5, Lines 33 - 36). The system issues title numbers and registration numbers identical in part to any serial number on such article of value (See, Col. 5, Lines 47 - 50). Using the Rose, Jr. system, a car is issued a permanent license plate which is coded to the VIN number (See, Col. 11, Lines 17 -20). Title is issued upon approval of a centralized authorized entity, and the title numbers and registration numbers are provided by the same (See, Col. 5, Lines 24 - 29). By tying the serial number (such as a VIN) with the title and registration number, the Rose, Jr. system attempts to make it easier to recognize false titles (See, Col. 9, 52 - 58). Once the title number and registration number are assigned, the centralized entity creates a title file in which information pertaining to important transactions pertaining to the article may be entered (See, Col. 7, Lines 14 - 19). Information pertaining to the item is sent by authorized agents (See, e.g., Col. 8, Lines 12 - 26) who may access the central database by providing an authorized entry code (See, e.g., Col. 11, Lines 48 - 52).

(2). United States Patent No. 5,337, 361 to Wang et al. discloses a record which contains a graphic image, and an information area, which are interrelated to discourage misuse of the record (See, Abstract). By interrelating the data and images, counterfeiting is reduced (See, e.g., Col. 1, Lines 35 - 42). Thus, for example, if a new photograph is inserted over an appropriate photograph, the information in the information area would not match the graphic image and counterfeiting would be detected (See, Col. 1, Lines 54 - 57).

(3). United States Patent No. 5,083,814 to Guinta et al. discloses an anti-theft security system for automotive, marine and other valuable personal articles such as objects of art and valuable collectibles (See, Abstract). In the Guinta et al. system, a dealer/installer first records and inputs data into a unit, such as a subscriber's name, address, description of article to be protected, manufacturer and serial number of the article, the insurance carrier providing insurance coverage on the article, etc. (Col. 2, Lines 5 - 8), then the unit, reading from memory a programmed set of possible marking locations for the particular type of article that has been entered (Col. 2, Lines 11 -14), randomly selects a location from the pre-set programmed possible marking locations for a security marking to be applied (Col. 2, Lines 8 - 10) displaying such locations on a display screen (Col. 2, Lines 16 - 18) to the installer. The unit assigns the code which is to be placed on the article, which may be placed in an invisible manner. Once the security marking is applied, the subscriber information, registration code and the coordinates of the markings are transferred to a limited-access central data base and the memory of the unit at the dealer/installer is erased (Col. 2, Lines 30 - 45). In the case of theft, authorities are provided with the coordinates of all marked locations as well as the code printed on the article (Col. 3, Lines 16 - 21).

(4). U.S. Patent No. 1,364,025 to J. Billings discloses concealing an identification element by disguising it as part of a machine (See, Claim 1), such as

enclosing the identification element within the bolt of a machine (Col. 3, Lines 40 - 64, Claim 4).

### The Examiner's Arguments

The Examiner has rejected Former Claims 31 - 37 as being obvious in light of U.S. Patent No. 5,521,815 to Rose, Jr., in view of U.S. Patent No. 5,337,361 to Wang et al.. Applicant respectfully traverses such rejection.

The Examiner argues that the Rose, Jr. reference "teaches a computer-assisted method of recording the identity of a purchaser of a particular good in a retail setting" comprising certain elements of Former Claims 31 - 37 (See, Page 2, Line 23 - Page 3, Line 6). The Examiner acknowledges that the Rose, Jr. reference doesn't "clearly teach 'accepting from a purchaser of said good an identity card housing electronically readable personal identification information'" (Page 3, Lines 16 - 17 of the Office Action). However, the Examiner argues that the failure of the Rose, Jr. reference to teach an identity card housing electronically readable personal identification information is overcome by the Wang et al. reference which he states teaches "an identity card (drivers license) that is encoded with electronically readable personal identification information" (Page 3, Lines 8 - 10 of the Office Action). The Examiner asserts that "it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide a bar code reader at an auto dealer seeking to implement the Rose invention in order to read bar coded information on the drivers license in order to increase security" (Page 3, Lines 11 - 14).

The Examiner summarizes his position with respect to Former Claims 31 - 37 as: "[ (1) ] Rose teaches the features of the invention, without extolling the benefits of automatic entry of data using machine readable codes[,] [(2)] Wang extols the benefits of automatic entry of just the type of data that is being entered in the Rose reference[,] [(3)]

[I]t would have been obvious to apply the Wang teachings to Rose” (Page 5, Lines 18 - 21 of the Office Action). Arguing that the Rose et al. reference teaches placing the Rose et al. license plate onto a car before retail sale, “[s]ince the VIN is ordinarily assigned to the car at the time of manufacture, and since the license plate [of Rose et al.] is directly related to the VIN” (Page 6, Lines 4 - 7 of the Office Action), and asserting that the Rose, Jr. reference teaches the “fundamental idea of matching product with customer at the time of retail purchase” (Pages 5, Line 29 - Page 6, Lines 2 of the Office Action), the Examiner asserts that the Former Claims 31 - 37 are obvious in light of the prior art.

With respect to Former Claims 34 and 35, both of which ultimately depend on Former Claim 31, the Examiner asserts that “electronically-readable coded form” includes alpha-numeric printing (Page 3, Lines, 20 - 22; Page 6, Lines 11 - 14 of the Office Action). The Examiner also asserts with respect to Former Claims 22 (sic – 45?) and 47 that a lot number is functional equivalent subset of an automotive VIN number (Page 3, Lines 23 - 25 of the Office Action) and relates to the origin of manufacture (Page 4, Lines 16 - 17 of the Office Action).

The Examiner rejected Former Claim 38 under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,521,361 to Rose, Jr. in view of U.S. Patent No. 5,337,361 to Wang et al. and further in view of U.S. Patent No. 5,083,814 to Guinta et al.. Similarly, Former Claims 42 - 43 and 46 - 47 were rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 5,521,361 to Rose, Jr. in view of U.S. Patent No. 5,083,814 to Guinta et al.. The Examiner asserts that the teaching of the Guinta et al. reference of an invisible identifier makes it obvious “to conceal the identification of Rose using an invisible marking ... in order to further thwart theft by preventing thieves from erasing the identification number” (Page 4, Lines 11 - 14 of the Office Action).

In regard to the Examiner’s rejection of Former Claim 44 under 35 U.S.C. § 103, the Examiner, maintaining that the claim is unpatentable over U.S. Patent No.

5,521,361 to Rose, Jr. in view of U.S. Patent No. 5,083,814 to Guinta et al. and further in view of U.S. Patent No. 1,364,025 to Billings, asserts that the Billings reference teaches “the encoding of an owner good identifier below the surface of a material” and that “[it] would have been obvious at the time the invention was made to a person having ordinary skill in the art to conceal the identification of Rose and Guinta below the surface of the material ... to further thwart theft by preventing the thieves from finding and erasing the identification number” (Page 4, Lines 23 - 26 of the Office Action.

### Applicant's Response

Applicant traverses the Examiner's rejections and disputes the basis upon which they are based. Respectfully, Applicant asserts that the Examiner, using hindsight reconstruction and a predisposed desideratum, ignores the specific limitations and the totality of teachings of the prior art, while inappropriately construing the claims of the present application to reach the Examiner's desired objective – that is, to find the invention obvious.

Applicant in particular notes NO teaching, suggestion or implication that the bar code on the license plate described in the Rose Jr. reference was to be used in the manner described in the present invention, never mind in the registration system described in the Rose, Jr. reference. The Rose Jr. “bar code” is added to the license plate because “the title number is too long to place on the article itself” (See, Col. 5, Lines 49 - 55). The bar code simply acts to allow “the complete title number [to] be affixed to [the] registration plate” (Col. 5, Lines 55- 57), as reinforced by the teaching that “the bar code may be replaced with a hologram” (Col. 9, lines 41 -42).

Applicant notes in the description of Figs. 1A - 1H (Cols. 11 - 14) of the Rose Jr. reference that the process is said to begin with the transmission of the “VIN” (Col. 11, Line 66), not the “title number” which is coded by the bar code on the Rose, Jr.

license plate. Applicant remarks that the title number of the Rose Jr. reference is said to be identical to the VIN number "plus the original state of entry, origin or titling"(emphasis added) (See, Col. 5, Lines 46 - 49). Therefore, the bar code is not used to begin the registration process described in the Rose Jr. reference, contrary to the Examiner's suggestions otherwise. Applicant also notes that on resale of the motor vehicle, the Rose, Jr. reference suggests that a title card, not the license plate, is used in the recordation process of the new owner, with the title identification card being "submitted to the authorized agent upon transfer so that title may be updated to reflect relevant data on the new owner, any changes in the condition of the article" (Col. 7, Lines 45 - 48) (See, also, Col. 10, Lines 46 - 49). In short, the Rose Jr. reference simply does not contemplate, nor does it teach or suggest, using the bar code on the license plate in a registration process.

Applicant further disagrees with the Examiner that the Rose , Jr. reference teaches placing the license plate onto a car before retail sale (Page 6, Lines 4 - 7 of the Office Action). Applicant notes again the description set forth with regard to Figs. 1A - H (Cols. 11 - 14) wherein it is noted that the along with the input of the VIN to begin the process that other data may also be input, such as data on the owner (Col. 11, Line 66 - Col. 12, Line 4), which of course would not ordinarily be known prior to retail sale. Further, Applicant notes Col. 16, Lines 17 - 25 wherein permanent registration plates are said to issue after the new title information is transmitted and the original certified title is printed, both of which occur after sale. Similarly, Applicant notes that the license plate depicted in Fig. 3 of the Rose, Jr. reference is described as including state information (Col. 9, Lines 36 - 38). Again, such information would not ordinarily be known prior to retail sale (Applicant ponders what would happen if a car was shipped with a license plate with state information attached thereto, and then the car was shipped to another state because no sale was made in the state to which it was originally shipped.). In conclusion, Examiner's suggestion that the license plate is placed on the car before retail sale is just not supported by the teachings of the reference.

Applicant remarks that Former Claims 31 - 38, as well as New Claim 48, require that the encoded good be accepted from the purchaser at retail sale. The Examiner suggests that tender of the good by the purchaser is taught by the Rose, Jr. reference (Page 2, Line 25 of the Office Action). Applicant respectfully asserts that such suggestion is simply without merit. Applicant notes no disclosure in the reference with respect to the purchaser proffering the vehicle. Nor can Applicant conceive of any practical scenario wherein a purchaser of a vehicle would drive the vehicle desired to be purchased to the show room to record the title number bar code along with purchaser identification information from an electronically-readable identity card. Respectfully, such scenario simply does not make any sense, especially since the car dealer would already have the VIN number upon numerous documents which are normally supplied upon receipt of the car by the dealer from the manufacturer.

Applicant further notes no teaching in the Rose, Jr. reference of an identifier identifying the type of good. If anything, the Rose, Jr. reference implies that such information is not needed. Applicant notes that the Rose, Jr. process uses serial numbers which are already assigned by the manufacturer, or in the case of a vehicle the VIN number (See, Col. 5, Lines 36 - 45) in its registration process. There is no teaching that any code placed on an article (See, Col. 1, Lines 28 - 31) be useful in identifying the type of good (such as whether the item to which the identifier is attached is a picture, lawn chair, mower, etc.). This is in contradiction to the embodiments asserted in Former Claims 31 - 38 and New Claims 48 - 54. Respectfully, the coding system of the Rose, Jr. reference simply would not be useful in the present invention.

Applicant also respectfully asserts that the Examiner is unfairly contorting the reading of the phrase "electronically-readable coded form," in suggesting that such phrase "does not exclude alpha-numeric printing" (Page 6, Lines 11 - 12 of the Office Action). Applicant disagrees that a person of ordinary skill in the art would interpret

“coded” form as implying standard alpha-numeric printing. While disagreeing with the Examiner, Applicant has set forth a definition in the amended specification which clearly demonstrates that such term does not imply alpha-numeric printing : “By ‘electronically-readable coded form’ it is meant data stored on or in magnetic form, electrical form, digital form (including storage on an optical disk), or symbolic print (that is, print symbolic of full text, without recourse to characters of conventional international languages and/or numerics, such as Arabic numerals, Roman numerals, English language characters, Chinese language characters, Japanese language characters, Russian language characters, etc.) which is capable of being read by an electro-optical reader.”

In regard to a “package” enclosing the good, while Applicant believes the meaning of “package” is well known to persons of ordinary skill in the art, Applicant has defined the term in the amended specification in a manner asserted to comport with that understanding: “by ‘package’ it is meant a covering which substantially surrounds a product to protect the product from damage prior to end-consumer use and which does not form part of the product itself. Clearly, the license plate of Rose, Jr. does not meet the definition of a “package”.

With respect to the Wang et al. reference, Applicant notes that the reference describes many types of records, for example, a passport, visa, ticket, bearer bond, stock certificate, picture. license or other record - See, e.g., Col. 1, Lines 14 -34. The reference also teaches a myriad of types of information which the scannable information is disclosed to comprise (Applicant notes Col. 4, Lines 7 - 41, referencing licenses, wherein the information is said to optionally include: whether the owner of the driver’s license was authorized to drive without corrective lenses, data on the eye color, hair color, sex, and/or height and weight of the holder of the license, or may consist of faceprint, correlatable with certain relations in the face). By picking and choosing from a broad disclosure, disclosing numerous kinds of records and encoded information types, the Examiner discovers a particular identity card housing electronically-readable



personal identification information for combination with select and misconstrued “teachings” of the Rose, Jr. reference. In attempting to construct the disclosed invention, respectfully, the Examiner combines two disparate references, one having an object “to provide a record with a graphic image along with encoded information to validate or authenticate a record” (See, Col. 2, lines 13 - 15 of Wang et al.), the other having an object of effecting a universal, uniform system for tracking transaction for items of value (See, Col. 1, Lines 11 - 13 of Rose, Jr.).

Applicant respectfully asserts that the Examiner is using impermissible hindsight, in picking and contorting certain isolated elements from the Rose, Jr. reference, while ignoring numerous disclosures and teachings in the same reference which are contrary to the present invention, and in selecting isolated elements from several laundry lists set forth in the Wang et al. reference without any direction to do the same. Respectfully, the Examiner is using a magician’s illusion to construct what can be described at best as a phantom approximation of the present invention, using a slight of hand that fails to provide a compelling, or even plausible, motivation for combining and altering the references in the manner described.

Former Claims 42 - 43 and 46 - 47 were rejected by the Examiner as being unpatentable over U.S. Patent No. 5,521,361 to Rose, Jr. in view of U.S. Patent No. 5,083,814 to Guinta et al. The Examiner acknowledges that the Rose, Jr. reference “does not teach the use of an invisible good identifier” (Page 4, Lines 10 -11 of the Office Action). The Examiner argues that the Guinta et al. reference “teaches the use of an invisible good identifier” and that it “would have been obvious at the time the invention was made to a person having ordinary skill in the art to conceal the identification of Rose using an invisible marking as taught by Guinta et al. in order to further thwart theft by preventing the thieves from erasing the identification number” (Page 4, Lines 11 - 14 of the Office Action). Again, Applicant respectfully asserts that the Examiner misses the mark.

Applicant does not disagree that the idea of concealing a marking is old, but rather argues that the specific method and process claimed in Former Claims 42 - 47 and New Claims 55 - 57 and 59, and the product thereof ( which is asserted in New Claim 58), are novel and unobvious. The fact is that the process of New Independent Claim 55 eventuates in a product which permits rapid registration of purchaser identity with respect to numerous purchased goods while limiting access to the unique identifier which identifies the product. It is the combination of these functionalities that are asserted to be novel, not the idea of using an invisible marking. Thus, while the idea of concealing serial numbers from thieves may be an old one, such as shown in the Guinta et al. reference, neither the Guinta reference, Billings reference, the Wang et al. reference nor the Rose, Jr. reference suggest employing such concealment along with a package identifier as presently claimed. Nor has the Examiner cited a motivation to do so without reference to the teachings of the present application.

Applicant further disagrees with the Examiner that Former Claim 44 is made obvious by the Rose, Jr. reference in view of U.S. Patent No. 5,083,814 to Guinta et al. and further in view of U.S. Patent No. 1,364,025 to Billings. Applicant notes that the Billings reference teaches disguising an identification means (such as a tag) as part of a machine (See, Claim 1; Col. 2, Lines 98 - 109). It does NOT, contrary to the Examiner's suggestion otherwise, suggest encoding the good identifier below the surface of a material comprising the good, as required by Former Claim 44. Again, Applicant respectfully suggests that the Examiner is reading the disclosure of the Billings reference in a contorted manner to make it fit certain limitations of the present claims. Applicant respectfully requests that the Examiner give appropriate consideration to this limitation, shown nowhere in the art of record, in examining New Claim 56.

Lastly, Applicant disagrees with the Examiner in regard to Former Claims 22 (sic -- 45?) and 47 that a lot number is a functional equivalent of other numbers set

forth in the Rose, Jr. reference or other references of record (See, Page 3, Lines 23 - 25 and Page 4, Lines 16 - 17 of the Office Action). Applicant does not discern any character in the VIN which corresponds to a lot number. Nor does Applicant note any other reference of record which cites an identifier wherein the position of the identifier on the good is associated with the lot in which the good was manufactured (as asserted in New Claim 57).

#### Allowable Subject Matter

The Examiner has indicated that Claim 8 is allowable. Former Claim 8 is now incorporated as New Claim 66. Applicant, therefore, respectfully asserts that New Claim 66 is allowable.

#### New Claims

Support for the New Claims is found throughout the specification among other places at pages 20 - 25. The New Claims are asserted to be clearly patentable over the prior art.

### **CONCLUSIONS**

For all of the above reasons, it is submitted that the present claims are clearly patentable over the art of record. Applicant respectfully disagrees with the Examiner that Applicant's approach is that of "analyzing the finer details of the respective disclosures" without addressing "the Examiner's more basic view of the claims presented and the prior art teachings" (Page 5, Lines 6 -8 of the Office Action). Instead, Applicant respectfully asserts that it is the Examiner's "basic view" that is flawed. Applicant respectfully asserts that the Examiner is confusing the obviousness of solving a puzzle in the light of day (i.e., in the light of the Applicant's disclosure), with that of solving the same puzzle in the dark of night (i.e., without knowledge of the

present disclosure). It is Applicant's position that it is the latter by which "obviousness" of an invention should be judged not the former, no matter how complex, or un-complex, an invention may at face value appear.

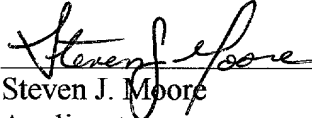
Accordingly, it is respectfully submitted that the claims under consideration are clearly patentable over the references of record. It is submitted that the above-identified patent application is in condition for allowance. Early notification of the allowability of Claims 48 - 67 is courteously solicited.

**FEES**

A filing fee of \$ 458 is enclosed to cover five independent claims (two claims in excess of three) and the filing fee for the continuation-in-part application.

Respectfully submitted,

Dated: June 25, 1999

  
Steven J. Moore  
Applicant

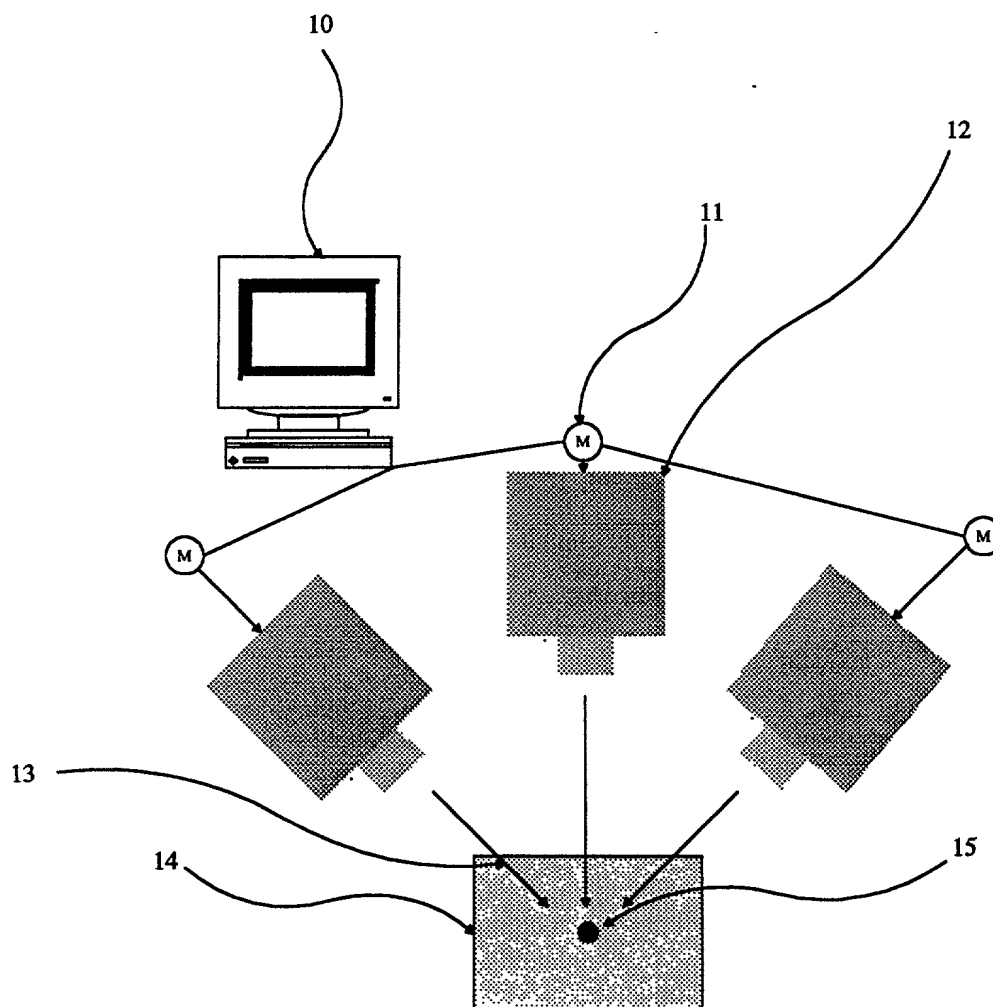


FIGURE 1

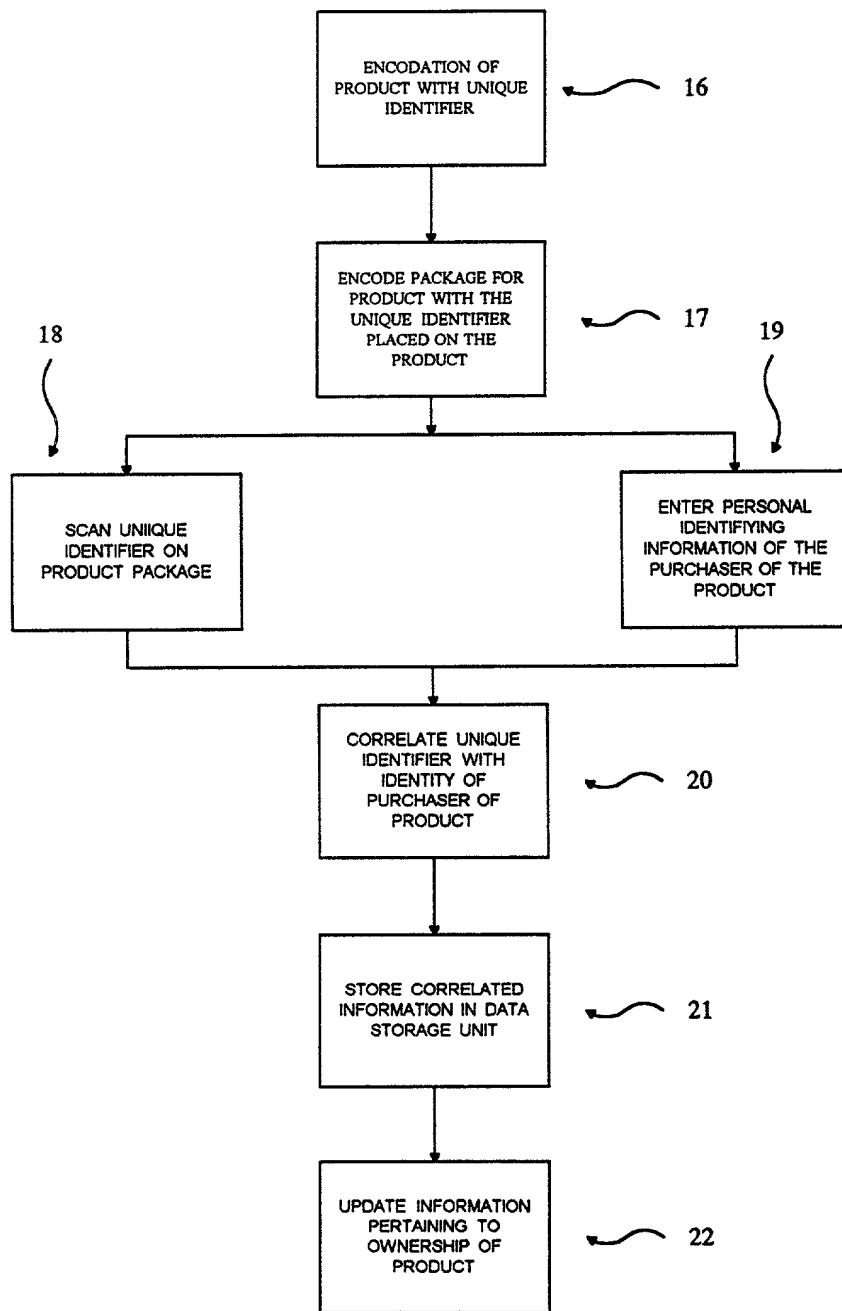


FIGURE 2

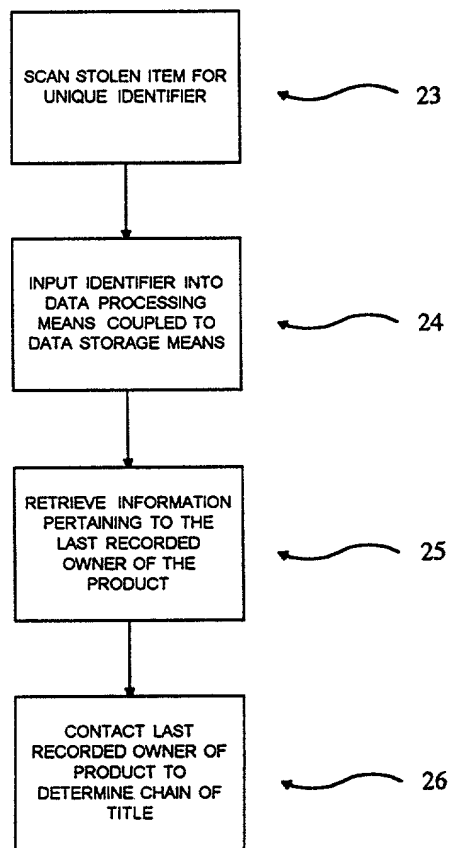


FIGURE 3

665250-01044250

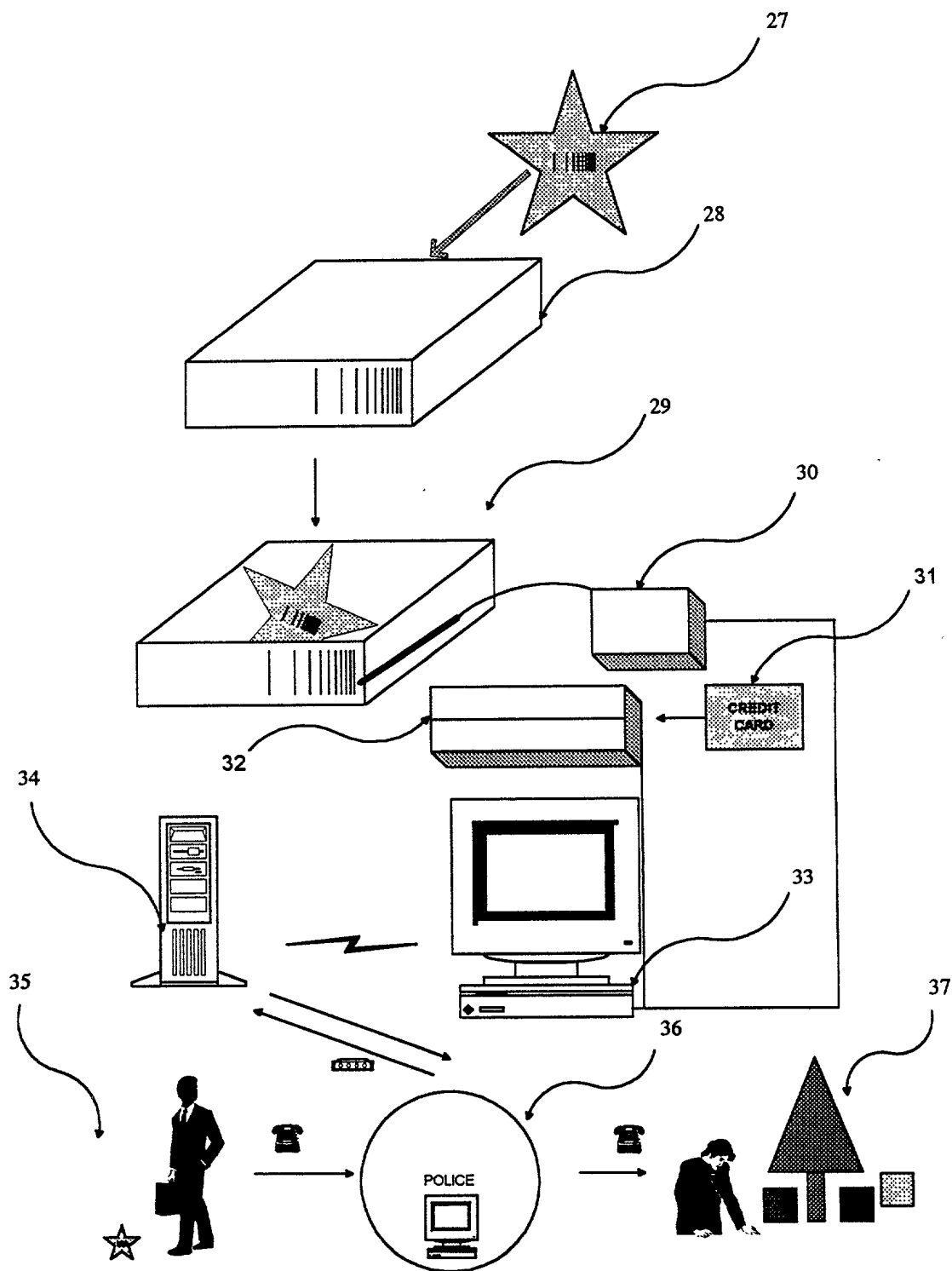


FIGURE 4



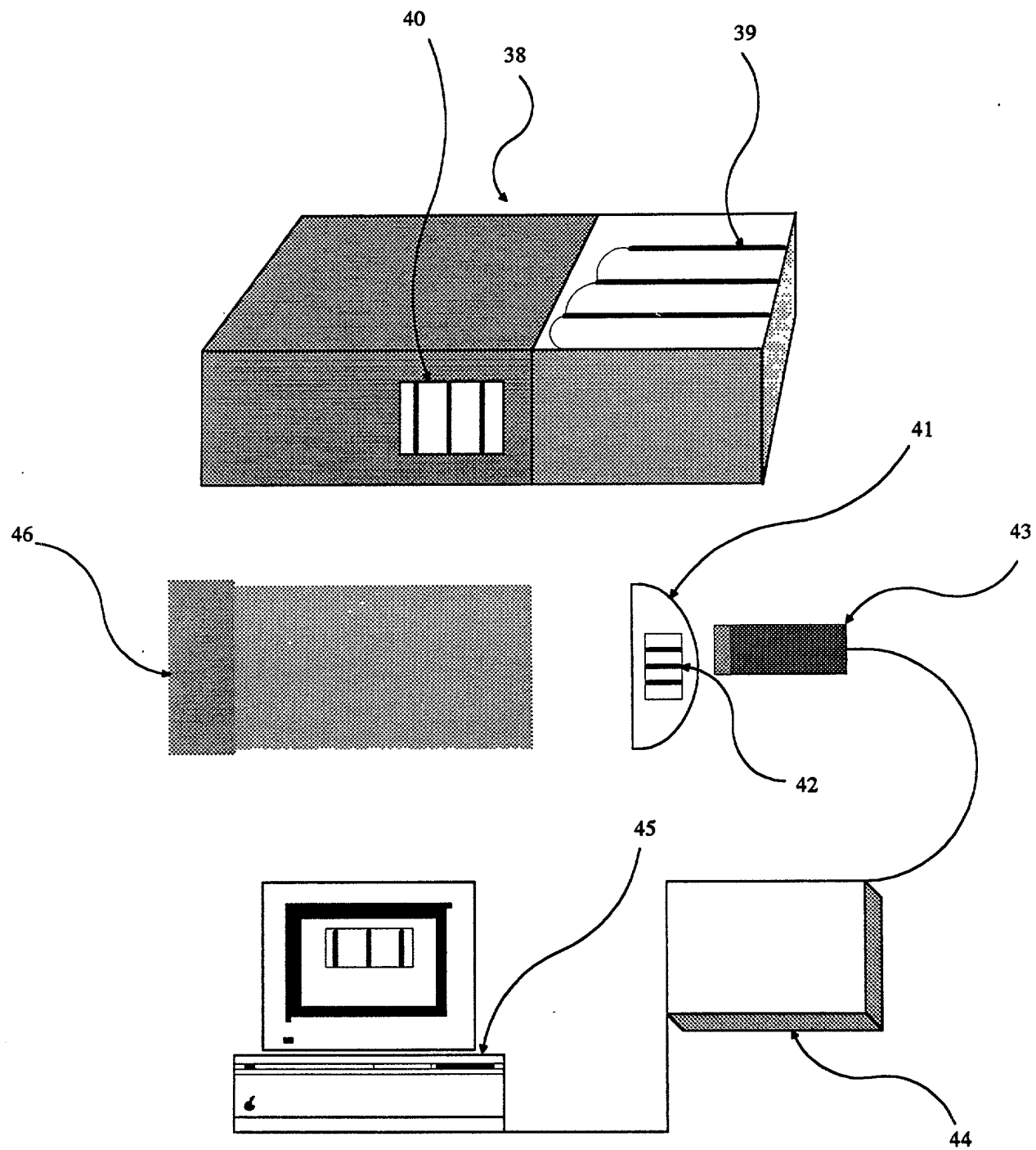


FIGURE 5

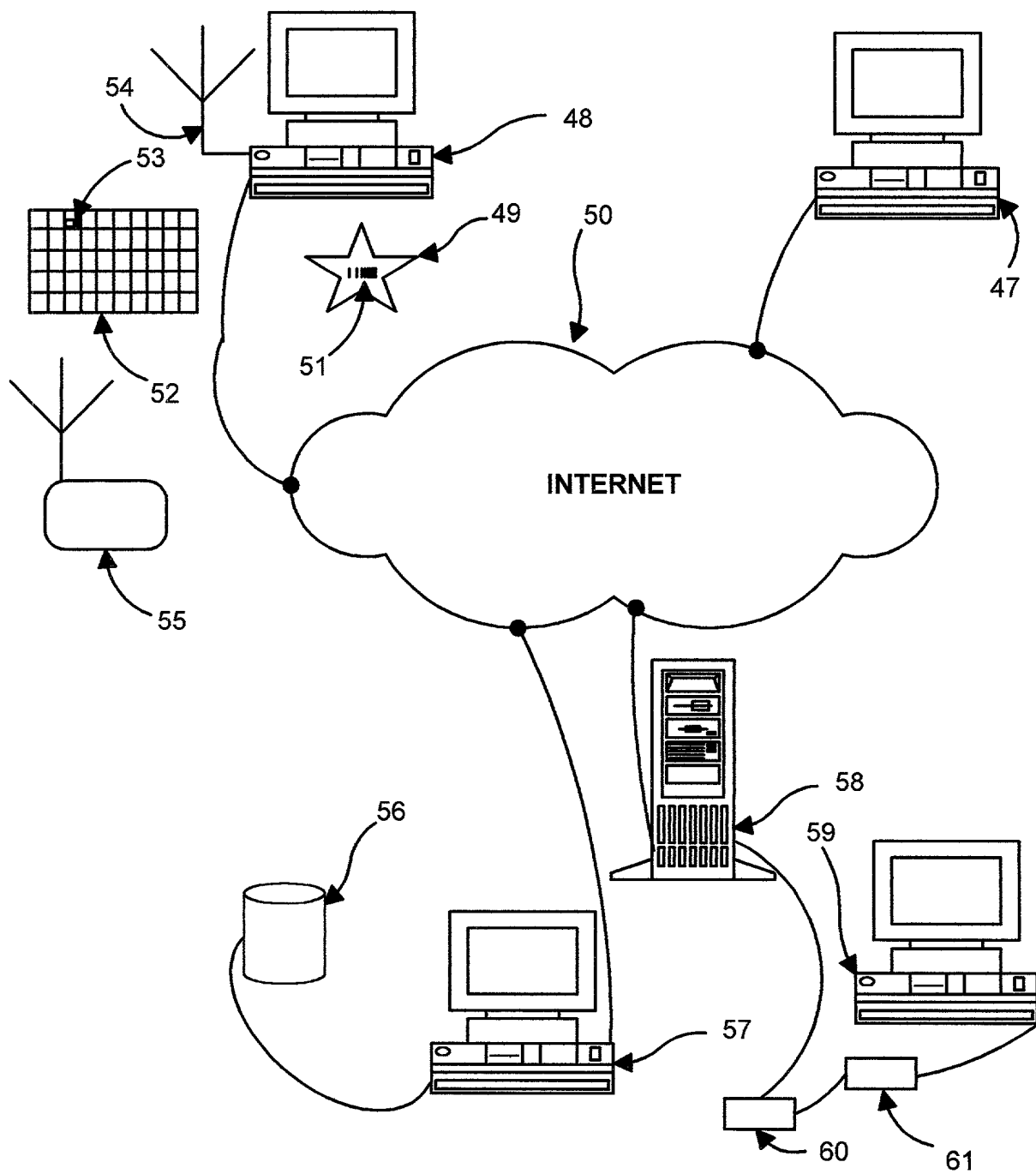


FIG. 6





Docket No. 122995-43-345

***EXPRESS MAIL LABEL NO.: EJ238216510US***

APPLICATION

5

for

10

LETTERS PATENT

of the United States of America

15

on:

20

**Apparatus and Method For  
Purchased Product Security**

25

by

Steven J. Moore

30

35 Number of Drawings: 8

## BACKGROUND OF THE INVENTION

### Field of Invention

5           The present invention relates generally to an apparatus and method for encoding unique identifiers on products and correlating the identifiers with the identity of the purchasers of the products. The invention encompasses means for encoding unique, concealed identifiers on products.

### Brief Description of the Prior Art

10           Hundreds of millions of dollars are lost each year in the United States owing to the theft of household goods. A significant problem associated with return of stolen goods is identifying the rightful owner of the stolen good. For example, more than one brand X television is reported stolen in New York City each day.

15           In general, persons seeking return of goods stolen from their possession have to prove that particular goods belong to them and not to some other victim of a theft. Heretofore, the best way of correlating a particular item with ownership was to keep a record of the serial number which is often engraved on, or attached to, the surface of a product.

20           The method of attaching a serial number plate to, or engraving a serial number on, a consumer good is well known in the art. Such method is exemplified in U.S. Pat. No. 4,936,608, in which industrial products are marked by "burning-in" alphanumeric numbers by means of a laser.

Promotional literature which comes with a new consumer products not infrequently includes a card with the serial number imprinted thereon. Recordation of ownership may be made by mailing the card into the manufacturer. Commonly, however, many of these cards are never returned by the purchaser and are subsequently discarded.

5           One significant problem associated with visible serial numbers, whether on a plate or engraved on the product, is that they provide for visual inspection of the serial number not only by the consumer of the good, but also by the thief. Thieves often eradicate visible serial numbers on stolen goods. Once the serial number has been removed, it is often impossible to correlate the true owner with the stolen item.

10           In order to prevent thieves from eradicating all serial number identifications from a product, it has been proposed that the serial number be printed on the product with invisible ink. For example, in U.S. Pat. No. 5,194,289, ultraviolet dyes are employed to imprint identification numbers. Similarly, in U.S. Pat. No. 5,360,628 an infra-red absorbing dye, IR 140 (5,5'-dichloro-11-diphenylamino-3,3'-diethyl-10, 12-ethylenethiatricarbocyanine  
15 perchlorate (CAS53655-17-7)) and invisible electrically conductive inks are disclosed. Others have proposed using biologic material for the concealed, unique identification of a product. U.S. Pat. No. 5,194,289 utilizes biologic markers, such as amino acids, proteins, and nucleic acids to identify an object. U.S. Pat. No. 4,880,750 discloses the use of individual-specific antibodies in an ink for identification of security documents. U.S. Pat. No. 4,441,943  
20 uses synthetic polypeptides for labeling explosives.

Invisible ink or material on the surface of the product also presents problems. Although more difficult for a thief to discern, such printing is usually easily removable from the surface of the product. Further, it is often difficult for law enforcement officials to determine where the invisible marking is located.

5 Both engraving of a serial number or the attachment of a serial number plate onto a product and the imprinting the surface of the product with invisible material provides for no direct mechanism of identifying the particular product with the purchaser of the product. Heretofore, as set forth above, the conventional means by which a particular product was identified with a purchaser was by means of consumer or retailer registration of ownership  
10 with the manufacturer by mailing in the serial number identification card.

In order to resolve these problems, it has been proposed in U.S. Pat. No. 5,083,814 that valuable personal articles be marked with an invisible ink at random locations on an article, such location being chosen by computer programmed to chose one of several hundred possible marking sites, and that the installer of the security marking record and input  
15 data pertaining to the ownership of the article in a limited-access central database. While this system provides for protection of the initial purchaser of a valuable good, it does not provide a method for registering subsequent purchasers, nor does it provide a method of automatically registering the purchaser of every day consumer goods. Further, while making it more difficult for a thief to discern the serial number, such technique does not prevent the thief  
20 from "filing-off" the serial number once it is discovered by means of an infra-red sensor, etc.



The correlation of a product with the purchaser of that product is also a problem in identifying the perpetrator of a crime. For example, criminals are adept at finding and removing serial numbers engraved on firearms. The discovery of a firearm at a crime scene often provides police with little clue about the perpetrator of the crime. Likewise, heretofore, it has been very difficult for police to correlate the purchaser of ammunition with the slug found in a body. Visibly marking the ammunition with a serial number and correlating the same with a purchaser have been proposed. Again the problem with such a system is that the visible serial number is easily removed by a criminal disposed to do such.

#### SUMMARY OF PRESENT INVENTION

The present invention provides for an apparatus capable of concealingly encoding unique identifiers on goods without the need for employing invisible inks or biological materials. It further provides for a computer-assisted system for automatically storing personal information on the purchaser of a consumer good and correlating such information with the unique identifier placed on a product by any means.

In one embodiment of the invention, a unique identifier is concealed within the material comprising the product. A plurality of high energy electromagnetic or particulate waves capable of partial transmission into the material to be marked are converged at a focal point within the material. It is preferred that each individual wave is of insufficient energy to substantially disrupt the surface of the material which is to be encoded. However, the totality of the convergent wave energies must be sufficient to disrupt the material at their point of convergence. In a preferred encoding embodiment the convergence point is controlled by

computer modulation. Movement of the convergence point within the material is used to provide a unique identifier in the material. The convergence point may be altered such that unique lines are made in the subsurface of the product such that a bar code identifier is formed. While the scope of the invention is not limited to any particular high energy electromagnetic or particulate wave, microwaves are within its scope. Encoding may further be performed by the convergence of sound waves, such as ultrasonic waves, when such waves are capable of deforming the material at the point of their convergence but not causing substantial deformation at the surface of the material itself. Encoding may be performed shortly after a component of the good comes out of the mold, that is, e.g., while a piece of metal or plastic is solidifying and cooling. Encoding may also be performed along a different x-y-z axis in the material during different production runs, such position of encoding being stored in a database maintained by the manufacturer of the material. Identifiers stored within the material comprising the product may be read by conventional devices such as ultrasound devices, computer-assisted axial tomography machines, or the use of x-ray devices.

The present invention further provides a computer-assisted method for correlating unique identifiers on products with identification information about the purchaser of the product or the good's manufacture or source of origin. In one embodiment, personal identification information housed on a credit card, license, check, etc., is correlated with the unique identifier which is on the product. In a preferred embodiment, the unique identifier is encoded not only on the product but also on the outside of the container which houses the marked product which is being sold. The personal identification information is coupled to the

identifier information on the package and such coupled information is stored in a database for  
latter retrieval if the item is stolen, lost, etc., and later recovered. The invention encompasses  
the notion that the consumer identification information coupled to the unique product identi-  
fier may be retrieved by means of the identifier on the check etc., (i.e., from a computer data-  
base containing information about the purchaser of the product), rather than the identifier on  
the check, etc. being coupled directly to the unique product identifier. Encoding may be as  
described above, or may be performed by placing an identifier on the surface of the product  
with invisible ink or other material detectable by electronic or chemical means but not by the  
human eye, or by placing a visible identifier on the surface the product.

A further aspect of the present invention is directed to encoding concealed  
unique identifiers on products by: directing a plurality of high energy electromagnetic waves  
at material comprising the product such that the convergence point of the waves is within the  
material; altering the convergence point of said high energy electromagnetic waves such that  
the three-dimensional structure of the material within the product is disrupted such that said  
unique identifier is formed. The encoding may be performed on material which is in a molten  
or semi-molten state.

Also disclosed is system for reading the encoding and comparing the same to  
information contained in a database comprising: a scanning device capable of discerning the  
internal contour of materials and reading an internal encodation; a computer database relating  
the internal encodation with information pertaining to the purchaser of a good or the good's

manufacture or source of origin; a processing device for correlating the information in the computer database with internal encodation discerned by said scanning device.

And yet a further aspect of the present invention is directed to a method of identifying the owner of a good, or the good's manufacture or source of origin, comprising:

5 encoding a unique identifier on a product; placing a visible electronically-readable package identifier correlatable with or identical to, said unique identifier on the product; inputting said visible electronically-readable package identifier with information pertaining to the purchaser of the product, the good's manufacture or source of origin; maintaining a database correlating the unique identifier with the information pertaining to the purchaser of the product, the  
10 good's manufacture or source of origin; reading said unique product identifier; and retrieving information pertaining to the purchaser of the product, the good's manufacture or source of origin from said database by means of providing the unique product identifier. The method encompasses the concepts that the product encoding may be concealed, the visible electronically-readable package identifier input by electronic means, and the information  
15 pertaining to the purchaser of the product, the good's manufacture or source of origin input by electronic means.

The electronically-readable package identifier may constitute a unique package identifier which not only can be used to determine the unique product identifier of the product to which the package identifier is attached but includes other information  
20 pertaining to the manufacture of the good such as the manufacturer of the good, the type of good (i.e., what the item is, e.g. a picture, lawn chair, mower, etc.), information pertaining to

the “characteristics of a good” [a good’s physical characteristics (e.g., the size, color, dimensions, features (e.g. having an ac/dc adapter or not)), its requirements for use (“good requirements”) (e.g. batteries, oil etc. needed to run the good), and “add-ons” associated therewith (that is, additional features which may be purchased for use with a good (e.g. example an ac/dc adapter), additional items which may enhance the product (e.g. an anti-glare screen for sue with a computer) or which may be useful in use with a product (e.g. a display case for displaying purchased figurines, insurance for the product))] and the ‘good’s origin” (e.g., the location where the good was manufactured, the lot number the good was produced in, the source of the products comprising the good).

An electronically-readable package identifier may incorporate in electronically-readable form information pertaining to the manufacture of the product (e.g. the characteristics of the good), with or without incorporating electronically-readable information correlative with a unique product identifier.

In one embodiment of the present invention a product information identifier which contains information pertaining to manufacture of the product, with or without the unique product identifier, is coupled electronically with the purchaser identifier in a first data storage medium (by “coupled electronically” it is meant associating one stream of information with another stream of information in a format such that the data may be interpreted by a processor and the association made between the information streams subsequently determined, and includes, without limitation, the use of relational databases). The product information identifier in such embodiment is also associated in a data storage

medium (which may be the same or different from the first data storage medium) with particular goods and/or services to which identifier may logically be said to relate, along with purveyor identification information relating to the purveyor of such goods and/or services.

Purveyor identification information preferably includes a communication address wherein the

5 purveyor may be contacted (such as an Internet address, IP address, residential address, mail address, e-mail address, telephone number, fax number, telecommunication line address etc.).

A processor then determines from the coupled product information identifier-purchaser identifier, and the coupled product information identifier-good/service-purveyor identification information which other products or services might be desired by the purchaser of a good and

10 the purveyor(s) which sell such products and/or services. For example, the product information identifier may incorporate information pertaining to the need of the product purchased for batteries. A battery purveyor therefore might be notified automatically by the processor, by way of the communication address embodied in the purveyor identification information that the person associated with the purchaser identifier might be in need of

15 batteries. For providing the service of identifying the possible need of the person associated with the purchaser identifier for the product (in this case the batteries) the purveyor might be charged a fee for each notification. Of course, the purveyor need not be provided with the identity of the person who might be in need of its services, or the address or communication path by which such person might be reached, rather the situs housing the processor might

20 send the information which the purveyor wishes to send without the purveyor ever knowing where it was sent. For example, the battery purveyor might want to send the purchaser of a

product needing batteries, a coupon for batteries. The situs which makes the comparison might notify the battery purveyor that it has determined someone who might be interested in its services, receive the approval or request of the purveyor to send a coupon to the person (such request may be pre-approved), and then send the coupon without the purveyor ever  
5 having actually received any information pertaining to the person to whom the coupon was sent. The situs might then charge the purveyor a fee for its handling of the transaction.

In another embodiment a relational database is maintained wherein information pertaining to good requirements and add-ons is associated with the identity of the good, or unique product identifier. In the same relational database, or another relational  
10 database, information pertaining to purveyors of good requirements and add-ons and a communication path to reach the same (e.g. Internet address, IP address, residential address, e-mail address, mail address, telephone number, fax number, telecommunication line address etc.) are related. Such purveyors are referred to as "secondary purveyors" if they are not the purveyor of the product which is initially being purchased. Concurrent with selling a product,  
15 information pertaining to the identity of the purchaser is obtained preferably including information pertaining to an appropriate communication path where the purchaser may be contacted (e.g. an actual mailing address may be needed if the product which the purchaser wished to purchase is a tangible product, while an Internet or e-mail address might suffice if the product being purchased is intangible (such as a digital picture or computer program) or a  
20 service). By determining, preferably automatically by use of a processor programmed to do the same, the add-ons and good requirements associated with the product which is being

5 purchased, and the secondary purveyors which offer such add-ons and good requirements, the secondary purveyor may be contacted by way of the secondary purveyor communication path to either inquire whether the secondary purveyor wishes to make an offer to the purchaser, or to inform that the secondary purveyor that such an offer has been made to the purchaser (e.g., if such offer is already authorized to be made – in which such case such information may also be associated with the purveyor information)

10 And yet another embodiment of the present invention is directed to purchases and offers to purchase made by way of a data processing telecommunications network, for example by way of the Internet. In such embodiment, the purchaser purchases, or makes an offer (which may include a bid or barter) for the purchase of, a good through a data processing telecommunications network (e.g. via an “e-commerce” application), and identifying information pertaining to the purchaser/offerer, and/or the particular address (e.g. Internet address, IP address, e-mail address, residential address, mail address, telephone number, fax number, telecommunication line address etc.) from which the purchase/offer was authorized (“purchaser identifier”), is coupled with the unique product identifier, the unique package identifier, and/or product information identifier. The purchaser identifier may include information pertaining to one or more accounts to which the purchaser is authorized to charge a purchase or debit a purchase.

20 Electronic correlation of the purchaser identifier with the unique product identifier, unique package identifier, and/or product information identifier, or any portion thereof, may be performed at the point where the product which is to be sent to the purchaser



is stored (e.g., wholesale house, storage room, retail store, etc.). In such case, the unique product identifier, unique package identifier, and/or product information identifier are preferably electronically scanned and electronically correlated with the purchaser identifier which has already been electronically stored on a data storage medium.

5           Electronic correlation of the purchaser identifier with the unique product identifier, the package identifier and or product information identifier, or any portion thereof, may also be performed contemporaneous with the tendering of the purchase order or offer to purchase. In such case, a particular pre-manufactured product carrying an unique product identifier, unique product identifier, or a group of pre-manufactured goods carrying a  
10 particular product information identifier, are selected for co-processing with the purchaser identifier when the purchase order is tendered, or the offer to purchase is made. Of course, a unique product identifier, unique package identifier, or product information identifier may be correlated with a particular purchaser identifier when the purchase order is tendered, or the offer to purchase is made, and the particular identifier applied to the product or package upon  
15 its manufacture or after its manufacture. If the unique product identifier is co-processed with the purchaser identifier at this point, such information can be transmitted to the purchaser or offerer at the same time, such that a record of the unique product identifier which will be borne by the product shipped to the customer may be kept in an database, preferably an electronic database, on both the seller's end and on the purchaser/offerer's end.

20           Of course the purchaser may record the association of the unique product identifier and/or unique package identifier (and/or package information identifier) with the



correlate the identifier with the particular person or persons having custody of the product.

Preferably electronic correlation is by electronically reading location information or custodian identification information by an electronic reader and electronically reading the purchaser identifier, the unique product identifier, and/or unique package identifier, and/or product information identifier. By coupling the unique product identifier, and/or unique package identifier, and/or product information identifier, with such location or custody information, it is possible to determine the persons and/or locations where the product has once resided, or presently resides.

The purchaser identifier may be read by an electronic reader from an identity card housing identification information in electronically-readable, or electronically-readable coded form, or may be input manually by way of an operator interface. The identification information which is to be associated with the good identifier is preferably authenticated, by, for example, requiring input of data representative of one or more unique characteristics of the person purporting to buy the object (for example, requiring a signature, a retinal scan, a finger print, or information which would only be known by, or associated with a physical characteristic of, the purported purchaser), which is transmitted to the purveyor of the good along with the purchaser identifier.

The identifier on the surface of the product may be encoded in "electronically-readable coded form." By "electronically-readable coded form" it is meant data stored on or in magnetic form, electrical form, digital form (including storage on an optical disk), or symbolic print (that is, print symbolic of full text, without recourse to characters of

conventional international languages and/or numerics, such as Arabic numerals, Roman numerals, English language characters, Chinese language characters, Japanese language characters, Russian language characters, etc.) which is capable of being read by an electro-optical reader. As would be understood by one of ordinary skill in the art, by “electronically-readable coded form” it is not meant to include conventional alpha-numeric printing.

By “coded alpha-numeric printing” it is meant alpha-numeric print which may be interpreted only by means of decoding the print into alpha-numeric characters such that the characters follow standard linguistic rules (such as English, Spanish, French etc.). By “digital encryption” it is meant coding digital data in such a manner that decoding, such as by means of an algorithm, is necessary for interpretation of the data pursuant to standard digital-based languages. The term “encryption” is meant to include both single-key and dual-key (e.g. private and public key) encryption.

By “electro-optical reader” it is meant any electronic-based reader capable of deciphering printed, magnetically and/or electrically stored data and transforming the same into electrical signals, of an analog or digital nature, which is representative of the data stored in the printed, magnetically and or electrically stored data. By “electro-optical reader” it is meant to include, without limitation, standard optical scanners, such as bar-code readers, capable of transmitting a light wave to a coded indicium and decoding the reflected light from the indicium, electromagnetic readers, such as, for example, credit card readers, capable of generating a magnetic field and decoding changes in such magnetic field as the coded indicium is moved through such field, and download readers, such as, for example,

“SmartCard<sup>®</sup>” readers, accepting a data stream from an electronic memory storage unit stored on a card, such memory storage unit frequently being coupled to an ASIC or microprocessor.

By “bar code” it is meant symbolic print consisting of a coded pattern of  
5 indicia. Bar codes may be one-dimensional, conventionally comprising a series of bars of various widths spaced apart from one another to bound spaces of various widths, the bars and spaces having different light reflecting characteristics. One-dimensional bar codes typically serve as an access code that serves as a real-time key for opening a database. Bar codes may also be more complex, such as a two dimensional bar code which consists of numerous  
10 indicia dispersed throughout a delimited space which record actual data. A two-dimensional bar code can store text and/or graphics without the need for access to a host relational-database for conversion of the code into the related data. Composite bar codes are also known, such as wherein one bar code type is printed in one ink type having a particular absorption and emission characteristics on top of another bar code type having a different  
15 absorption and emission characteristic.

By “identifier” it is meant to include one or more identifiers which identify an item in the manner described. For example, a printed “identifier” may consist of one or more bar codes or indicia physically separated from one another by some distance.

By “processor” it is meant any device for processing an input electrical signal,  
20 and for generating a processed electrical signal therefrom according to predetermined protocol, and includes, without limitation, a microprocessor, DSP, ASIC, multiplexer,

microchip, controller and other processors currently available in the art, or which in the future may be developed in the art. By "data processor" it is meant a functional unit, whether hardware and/or software, that interprets and executes instructions and consists of at least an instruction control unit and an arithmetic and/or logic unit. By "data storage unit" it is meant  
5 any device for storing electronic data, and includes, without limitation, RAM, ROM, hard and floppy data storage disks, optical disks, WORM, tape drives, etc. and other types of electronic data storage devices currently available in the art, or which in the future may be developed in the art.

By "operator interface" it is meant any device permitting input of data by an  
10 operator, and includes, without limitation a physical keyboard, a touch screen, a scanner, a switch, e.g. a game pad switch, an electronic mouse, a roller-ball selection device, and other such types of operator interfaces currently available in the art or which in the future may be developed in the art.

By "data processing telecommunication network" it is meant any one of the  
15 many data processing network systems used conventionally, including, without limitation, PBX and LAN networks, and the Internet, in which two or more data processing devices communicate with each other and/or with a centralized host. A "data processing telecommunication network" may include any of the many network topologies known, including, without limitation, a star network topology, a ring network topology, a token ring  
20 network topology, a bus network topology, and other similar network systems and topologies which may be developed in the future.

The term "Internet" is used in the same manner as used by persons of ordinary skill in the art. The term "Internet" describes a widely distributed network connecting users through autonomous networks, such as in industry, education, government and research. Users of the Internet are typically interfaced into the network through a "service provider."

5 The Internet Protocol conventionally provides for transmitting blocks of data, called datagrams, from sources to destinations, where sources and destinations are identified by fixed length packet addresses. The Internet Protocol uses TCP/IP. The Internet Protocol also provides for fragmentation and reassembly of long datagrams, if necessary, for transmission through small-packet networks.

10 By "retail sale" it is meant a sale of a good to the ultimate user/consumer of the good. Such sale is distinguished from a "wholesale sale" wherein goods are sold to party for resale, as for example, by a wholesaler.

By "address" it is meant any location information, including, without limitation, a residential address, a telephone number, an e-mail address, an Internet address, a  
15 fax number, a telex number, a LAN address etc.

By "digital information" it is meant information encoded in an electronic bit stream.

By "package" it is meant a covering which substantially surrounds a product to protect the product from damage prior to end-consumer use and which does not form part of  
20 the product itself. A "package" may be comprised of one or more than one material, for example, cardboard and transparent plastic (to permit the good to be seen and displayed).

Packages are often designed to permit easier storage of a good, particularly if the good is difficult to store in its natural form (for example, jelly beans).

By "substrate" it is meant any material. By "card" it is meant any substrate in any shape that is easily carried on a person's body and includes, but is not limited to, a polymeric card, a cellulosic-based card, etc. By "identity card" it is meant a card with information thereon intended to identify a particular individual. By "encoded identity card" it is meant a card which carries identity information in electronically-readable coded form. By "self-authenticating identity card" it is meant a card which carries information, such as a picture or signature, or parameters related to an authenticate signature, of the person identified on the card or unique characteristics associated with the person identified on the card (such as a fingerprint), which permits the tenderer of the card to authenticate identity from such information alone. By "self-authenticating electronically-readable encoded identity card" it is meant an "encoded identity card" which carries information, such as a picture or signature or parameters related to an authenticate signature of the person identified on the card or unique characteristics associated with the person identified on the card (such as a finger print or retinal scan) in electronically-readable coded form which can be used to authenticate the identity of the tenderer of the card from such information alone. By "microcircuit technology card" it is meant a card containing an embedded processor (e.g., a microprocessor) that can manipulate and store data, and includes, for example, a "Smart<sup>®</sup>Card". By "microcircuit technology card reader" it is meant a download reader



which accepts a data stream from an electronic memory storage unit found on the microcircuit technology card.

In yet another embodiment, there is disclosed a computer-assisted method of recording the identity of a purchaser of a particular good in a retail setting comprising:

5

accepting from a purchaser at retail sale a good encoded with a good identifier identifying the manufacturer of a particular good and containing identification characters unique to the particular good, enclosed in a package having a visible electronically-readable coded form package identifier correlatable with the good identifier, the package identifier identifying the type of good, the good's manufacturer, as well as identifying the unique identification characters on the good;

10

accepting from the purchaser of the good an identity card housing electronically-readable personal identification information;

15

inputting by an electro-optical reader the personal identification information from the identity card into electronic storage at the point of retail sale of the good;

20

inputting by an electro-optical reader into the electronic storage the visible electronically-readable coded form package identifier at the point of retail sale of the good in tandem with the input of the personal identification information;

correlating the personal identification information with the package identifier in a computer database.

25

The method of this embodiment may further comprise the step of transferring the correlated data to a shared database with other retailers. The method may optionally comprise the step providing the encoded good identifier to the purchaser in electronically

readable coded form on a document for further recordation of a subsequent purchaser of the good. The method may optionally comprise the step of: printing the package identifier and the personal identification information on a sales receipt in electronically readable coded form at the point of retail sale of the good. The method of claim may use a good identifier that is invisible in visible light and may use an identity card which is a self-authenticating electronically-readable coded identity card, such as an identity card which is a microcircuit technology card.

Also disclosed is a process for encoding a product with an identifier uniquely correlatable with the product comprising:

encoding a good with an invisible good identifier in electronically-readable coded form, the good identifier identifying the manufacturer of a particular good and containing identification elements unique to the particular good;

on the good or the packaging of the good, placing a package identifier, in visible electronically-readable coded form, which is correlatable with the invisible good identifier, the package identifier identifying the type of good, the good's manufacturer, as well as the identification elements unique to the particular good.

In such embodiment, the process may employ invisible encoding which is performed below the surface of a material comprising the good. The process may also place the good identifier position on the good in a manner that placement thereof is associated with the lot in which the good was manufactured. The visible electronically-readable package identifier of the

process which is placed on the good or the packaging of the good may further identify the type of good, the good's manufacturer, and its manufacture or origin of manufacture. Also disclosed is the product of the process.

5 Further disclosed is a computer-assisted method of identifying a record owner of the product, or part thereof, of product of the above process comprising:

obtaining the good of such product;

10 determining the unique invisible good identifier encoded on the good;

inputting the good identifier along with the type of good and the good's manufacturer into a data processor operatively connected with a data base housing purchaser identity information correlated to good identifiers found on goods;

15

retrieving purchaser identity information correlated with the good identifier in the data base;

20

determining the identity of the purchaser(s) of the good from the purchaser identity information.

And yet further disclosed is a computer-assisted method of recording the identity of a purchaser of a good purchased through a data processing telecommunications network

25 comprising:

receiving over a data processing telecommunications network a computer

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data signal comprising digital information relating to the order of a good,  
the identity of the orderer of the good, and the address to which the orderer  
of the good desires the good to be transmitted, the computer data signal  
being transmitted from the orderer's computer to the computer of a purveyor of  
the good;

transmitting from the purveyor's computer in response to the offerer's order a  
computer data signal comprising a request for the good to a remote computer  
located at a site remote from the purveyor's computer, the remote computer  
being located at a site at which such good is physically available as a product  
comprising the good, and a package surrounding the good, the package having  
a package identifier in electronically-readable coded form correlatable with the  
unique good identifier;

receiving a computer data signal from the remote computer comprising digital  
information with respect to the package identifier and correlating the package  
identifier digital information with the digital information pertaining to the  
identity of the offerer and the address to which the offerer desires the good to be  
transmitted.

Also disclosed is a computer-assisted purchase and sale method comprising:

accepting from a purchaser at the time of purchase of a good digital identification  
information identifying the purchaser and a contact address of the purchaser;

correlating in a relational database the purchaser digital identification information with  
an identifier associated with the good purchased by the purchaser;

accessing a relational database correlating the identifier with one or more  
associated characteristics of the good;

accessing the same or different relational database which correlates associated characteristics of goods with secondary purveyor(s) proffering good or services directed to such associated characteristics and a contact address of the secondary purveyors;

5

determining from the identifier associated with the purchased good secondary purveyor(s) of good or services directed to associated characteristics of the purchased good;

10

proffering the purchaser by way of the purchaser contact address good or services proffered by the secondary purveyor(s) which are related to associated characteristics of the purchased good;

15

contacting the secondary purveyor(s) by way of the secondary purveyor(s) contact address to inform the secondary purveyor(s) of the purchaser's response to the proffer.

In such embodiment the identifier associated with the good being purchased may be selected from the group consisting of: a unique product identifier, a unique package identifier, a product information identifier. The method may entails use of a data processing telecommunication network, for example the Internet.

20

And yet also disclosed is a method for encoding concealed unique identifiers on products comprising:

25

directing one or more high energy electromagnetic waves at a material in a molten or semi-molten state such that the wave(s) substantially converge at a point within the material;

altering the convergence point of the high energy electromagnetic wave(s) such that the three-dimensional structure of the molten or semi-molten material is disrupted such that a unique identifier is formed;

using the solidified material in the construct of a product.

Such method may use any type of molten or semi-molten material, such as a plastic.

The present invention further encompasses the concept that the unique identifier may be placed on a bill of sale, receipt, or other similar document in optically visible or invisible electronically-readable coded form or alphanumeric text and that such identifier may be input from such bill of sale, receipt, or other similar document along with personal identifying information of a second person if the product is sold or transferred to a second person. The present invention further encompasses the concept that the unique product identifier may be inserted into an electronic bill of sale, receipt or other similar electronic information which may be downloaded, with or without the purchaser identifier used to purchase the good, into a data storage unit at either, or at both, the purchaser's end or seller's end. The database containing the coupled owner-product identification information is updated by either deleting information pertaining to the previous owner or by adding a date to the information such that a chain of title can be maintained in the database.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

For a more complete understanding of the objects of the present invention, the Detailed Description of the Illustrative Embodiments thereof is to be taken in connection with the following drawings, in which:

Fig. 1 is a schematic representation of an encoding device for concealing unique identifiers in the sub-surface of materials comprising a product.

Fig. 2 is a block diagram illustrating a method for correlating the unique identifier on a product with consumer identification information.

Fig. 3 is a block diagram illustrating a method for determining the identity of the owner of a product from the unique identifier on a product processed in the manner of Fig. 2.

Fig. 4 is a schematic of the method of the present invention wherein unique product identifier information is readily available to the cashier by means of imprinting the same on the package in which the product is sold.

Fig. 5 is a schematic demonstrating a process by which a unique product identifier concealed under the surface of materials comprising a product is discerned.

Fig. 6 is a schematic demonstrating an Internet application of the present invention, that is wherein the product is purchased or identified through the Internet.

Fig. 7 is a schematic demonstration of an Internet application of the present invention, wherein the product is purchased or identified through the Internet, and the last registered owner of the product is determined by means of accessing a data base connected to the Internet.

Fig. 8 is a schematic demonstration of an Internet application of the present invention, wherein the purchaser of a gun is registered with the authorities.

**DETAILED DESCRIPTION OF THE ILLUSTRATIVE  
EMBODIMENT OF THE PRESENT INVENTION**

5

Referring to *Fig. 1* of the drawings, there is shown an exemplary encoding device capable of placing unique product identifiers within the material comprising a product. Such device is comprised of a plurality of high energy electromagnetic wave generators **12** for generating waves **13** that impinge upon the surface of material **14** without substantially  
10 disrupting the same and that penetrate at a convergence point at a specified depth within the interior of material **15**. Typically, the wave generators **12** are coupled to a data processing device such as computer **10** which controls the movement of the convergence point along the x-y-z axis of the material via a plurality of motors **11**, such multiple control being well known in the art.

15

Referring now to *Figs. 2 and 3*, there is presented in block diagram form an exemplary method for correlating a product with the purchaser of that product after theft or loss of the product. The product is encoded with a unique identifier (**16**) which may be concealed, non-concealed, visible or invisible. A product is placed in a container upon which is placed a visible electronically-readable package identifier correlatable with, or identical to,  
20 the unique identifier on the product (**17**). Such package identifier may also include identifiers incorporated onto a tag, label or other such item. The visible package identifier is scanned by means of a scanner at the point of purchase of the product by the purchaser of the product



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(18). A credit card, draft or other identifying card containing information which is convertible into a digital data stream, is scanned to produce digitalized identifying data with respect to the person purchasing the product (19). The personal identifying information is correlated with the unique product identifier (20) and the correlated data is stored in a data storage unit (21). Information pertaining to ownership can be updated (22) by inputting the same unique identifier with new purchaser personal information. If an item is stolen, the position of the unique identifier is determined by scanning the item for the mark (23). The identifier is then input into a data processing means coupled to the data storage unit in which resides the product unique identifier information coupled to the purchaser identification information (25). Information pertaining to the last recorded owner of the product is retrieved and contact with the recorded owner is made in order to ascertain the true owner (26).

Referring now to *Fig. 4*, there is shown a schematic of the method of the present invention. Product 27, in this case a star, is encoded with a unique identifier which identifies that particular star. It should be understood that the identifier can encompass both the Universal Product Code and a special identifying serial number thereafter. Product 27 is placed in package 28 to which is applied code which is correlateable to or identical to the unique identifier on product 27. The clerk ringing up the sale scans by scanning means 30 in an electronically-readable product identifier on package 29, or the same incorporated on from a tag, label etc., and inserts a credit card 31, license or other personal identifying card into card reader 32. Personal information as well as product identifier information is correlated with one another and such correlated information is stored in data storage unit 33. Periodi-

cally such correlated information is sent to central data storage unit 34. Upon finding of an item 35 the item may be provided to authorities 36, who upon consulting data storage unit 34, may determine and contact the last recorded owner 37.

Fig. 5 is a schematic demonstrating a means by which a unique product identifier concealed under the surface of materials comprising a product may be used to identify the perpetrator of a shooting. Bullets 39 are purchased in package 38 to which a unique product identifier 40 has been attached. Bullets 39 comprise shell 46 and slug 41. Slug 41 houses a unique identifier within the slug, such unique identifier correlating with the unique product identifier 40 on the package. Upon need to determine who fired slug 41 the slug is scanned by scanner 43 attached to a scan recording device 44 and/or data processing means 45. Scanning reveals the product identifier which may be correlated with the purchaser of the bullets by the means described above.

Referring now to Fig. 6, there is shown a graphical illustration of computer systems connected by way of a data processing telecommunication network, in this case the Internet. Internet 50 is a network of millions of interconnected computers 47 including systems owned by Internet providers and information systems (e.g. BBS) 58 such as CompuServe or America Online. Individual or corporate users may establish connections to the Internet via any of the many ways known to those of ordinary skill in the art. For example, a user on a home computer 59 may through a modem 61 dial up an Internet Service Provider 58 to connect to a high speed modem 60 which in turn provides a full service

connection to the Internet. The user may seek good information from a good provider by connecting to a provider's computer 57 by way of the Internet.

In one embodiment of the present invention the user provides a purchaser identifier in the process of ordering a good from the provider. The provider receives other  
5 information from the purchaser concerning the type of good (i.e., what product is desired) and quality of good which is being sought. The provider may then query its database 56 of already stored goods to determine if a particular good or group of goods having such qualities is/are already in stock. By previously having correlated the stored goods with the location of the stored goods in database 56, or other database, the provider may then contact by way of  
10 the Internet or other telecommunications, the warehouse where the desired good 53 is stored. Contact by the provider may be made directly with warehouse computer 48 which may store more exact information pertaining to the location of the desired good 53 in the warehouse, such as the exact bin where the good is stored in a series of bins 52. Correlation of the desired good 53 with a particular bin 52 may be stored in a relational database by scanning an  
15 electronically-readable package identifier on the package associated with the product, or a product information identifier itself, and an electronically-readable identifier associated with the bin in which the good is placed (e.g., placed in inventory). A request for pulling the good, and for shipping the same to the purchaser identified by way of the purchaser identifier, may be transmitted aurally to a site closer to the good in the warehouse, for example, to an  
20 automatic inventory pulling device 55 which may pull the product, and which may be responsible for transmitting information about the purchaser downstream to other devices

which may process the good for mailing (or the pulling device may be involved itself in the packaging and/or labeling of the good for shipment). The good 49 may be incorporated into a package as a packaged product 53. Packaged product 53 may include a unique package identifier which correlates with a unique product identifier 51 on the good.

5           Now referring to *Fig. 7*, there is shown a graphical illustration of another data processing telecommunication network embodiment of the present invention. In this embodiment a purchaser purchases from a catalog of products which may be depicted on the purchaser computer screen 69 by choosing from the catalog of products, as for example, by clicking the picture or icon on a mouse 70. Identity of the person selecting the item for  
10   purchase may be determined from the Internet Address of the purchaser's home computer 59, a URL address, an e-mail address, a home computer 59 identity number uniquely associated with the computer, by requesting input of identifying information of the purchaser (e.g., name, address, and credit or debit card number), or by more exacting means, such as by way of an electronically readable, preferably coded, identity card which may be read by an  
15   electronic reader operatively connected to the consumer's home computer 59 (e.g. a Smart Card reader coupled to a computer, and a Smart Card containing identity information read ). Identity can also be authenticated by digitizing a retinal scan, a finger print, or requesting the person sign the person's signature by means of an electronic interface device coupled to the consumer's home computer 59. Preferably any identity information should include the  
20   mailing address of where the product is to be sent. Provider's computer 57, preferably stores the person identification information (preferably including the mailing address of where the

product is to be sent) in a database 56 connected thereto. Provider's computer 57,  
alternatively or in conjunction with such storage, may pass the identity information along  
with an order for the item chosen for consumption to a source where the product chosen may  
be obtained. Preferably this source is also connected to the Internet by coupling one or more  
5 of its processors 65 to the Internet. Source processor 65 may automatically correlate the  
purchaser identification information with a unique product identifier, and/or unique package  
identifier, and/or product information identifier which has already been applied to a product,  
and notify inventory control personnel, or an automatic inventory pulling device, that a  
particular item with such identifier attached be pulled and shipped to the consumer requesting  
10 the product. Alternatively, the source processor 65 may transmit information pertaining to  
the order (such information which may include the purchaser identification information), for  
example, aurally by means of an antenna 64, to a processor 62 which is found closer to the  
inventory being sought (which processor 62 is also equipped with an antenna 63). The unique  
product identifier and/or unique package identifier, and/or product information identifier, may  
15 be read from the package 28 housing the good sought, in this case star 27, and such  
information sent by processor 62 at the inventory site back to the source processor 65, where  
such information may be correlated in a data base with the purchaser identification  
information. Such correlated information may be stored solely at the inventory site, or may  
be transmitted to the provider's computer 57, the Internet Service Provider 58 processor, the  
20 consumer's home processor 59, or a third party processor. Other information, such as day and  
time of the purchase, and for whom the purchase of the good was made, may also be provided

along with the purchaser identification information and the information pertaining to the product. Preferably at the provider's site, but optionally at other sites connected to the data processing telecommunications network (such as at the source, the Internet Service provider, or the purchaser's site), a relational database is maintained associating the good ordered with associated characteristics of the good, for example, add-ons associated with the good and/or good requirements for use of the good (e.g. batteries) and secondary purveyors selling goods and/or services related to the associated characteristics of the good. In this example, a Christmas Tree 67 manufacturer is contacted through its processor 66 upon ordering of the good, star 27, to determine if the Christmas Tree manufacturer wishes to be make an offer to the person who is purchasing the star.

Referring now to *Fig. 8*, there is shown a graphical illustration of yet another data processing telecommunication network embodiment of the present invention. In this embodiment, a consumer purchases a product through an e-commerce application. For example, consumer may access a provider's database 56 through user's home computer 59 via an Internet Service Provider 58. The user may seek good information from the purveyor's computer 57 connected to the Internet. The provider may provide a plurality of pictures or icons, such as of a gun 69, which may be chosen for purchase, as for example, by clicking the picture or icon on a mouse 70. Identity of the person selecting the item for purchase may be determined from the Internet Address of the consumers home computer 59, URL address, home computer 59 identity number uniquely associated with the computer, by requesting input of identifying information of the purchaser (e.g., name, address, and credit or debit card

number), or by more exacting means, such as by way of an electronically-readable, preferably coded, identity card which may be read by an electronic reader operatively connected to the consumer's home computer **59** (e.g. a Smart Card reader coupled to a computer, wherein the Smart Card contains identity information etc.). Identity can also be confirmed by digitizing a retinal scan, a finger print, or requesting the person sign the person's signature by means of an electronic interface device coupled to the consumer's home computer **59**. Preferably any identity information should include the mailing address of where the product is to be sent. Purveyor computer **57**, preferably stores the purchaser identification information (preferably including the mailing address of where the product is to be sent) in a database **56** connected thereto. The provider, alternatively or in conjunction with such storage, may pass purchaser identification information along with an order for the item chosen for consumption to a source where the product chosen may be obtained. Preferably this source is also connected to the Internet by coupling one or more of its processors **65** to the Internet. Source processor **65** may automatically correlate the purchaser identification information with a unique product identifier, and/or unique package identifier, and/or product information identifier which is already been applied to a product, and notify inventory control personnel that a particular item with such identifier attached be pulled and shipped to the consumer requesting the product. Alternatively, the source processor **65** may transmit information pertaining to the order (such information which may include the identity information), for example, aurally by means of an antenna **64**, to a processor **62** which is found closer to the inventory being sought (which processor **62** is also equipped with an antenna **63**). The unique product identifier

Parameter	Value	Unit	Parameter	Value	Unit
Initial temperature	25.0	°C	Initial concentration	0.1	mol/L
Final temperature	25.0	°C	Final concentration	0.1	mol/L
Initial pressure	1.0	atm	Initial volume	1.0	L
Final pressure	1.0	atm	Final volume	1.0	L
Initial pH	7.0		Initial ionic strength	0.1	M
Final pH	7.0		Final ionic strength	0.1	M
Initial buffer concentration	0.1	M	Initial enzyme concentration	0.1	U/mL
Final buffer concentration	0.1	M	Final enzyme concentration	0.1	U/mL
Initial substrate concentration	0.1	M	Initial cofactor concentration	0.1	M
Final substrate concentration	0.1	M	Final cofactor concentration	0.1	M
Initial inhibitor concentration	0.0	M	Initial activator concentration	0.0	M
Final inhibitor concentration	0.0	M	Final activator concentration	0.0	M
Initial metal ion concentration	0.0	M	Initial organic solvent concentration	0.0	M
Final metal ion concentration	0.0	M	Final organic solvent concentration	0.0	M
Initial surfactant concentration	0.0	M	Initial cosolvent concentration	0.0	M
Final surfactant concentration	0.0	M	Final cosolvent concentration	0.0	M
Initial salt concentration	0.0	M	Initial stabilizer concentration	0.0	M
Final salt concentration	0.0	M	Final stabilizer concentration	0.0	M
Initial preservative concentration	0.0	M	Initial excipient concentration	0.0	M
Final preservative concentration	0.0	M	Final excipient concentration	0.0	M
Initial packaging material concentration	0.0	M	Initial container concentration	0.0	M
Final packaging material concentration	0.0	M	Final container concentration	0.0	M
Initial shipping conditions	25.0	°C	Initial storage conditions	25.0	°C
Final shipping conditions	25.0	°C	Final storage conditions	25.0	°C
Initial distribution network	0.0		Initial regulatory approval	0.0	
Final distribution network	0.0		Final regulatory approval	0.0	
Initial market penetration	0.0		Initial sales volume	0.0	
Final market penetration	0.0		Final sales volume	0.0	
Initial customer satisfaction	0.0		Initial product quality	0.0	
Final customer satisfaction	0.0		Final product quality	0.0	
Initial brand awareness	0.0		Initial marketing budget	0.0	
Final brand awareness	0.0		Final marketing budget	0.0	
Initial competitive advantage	0.0		Initial intellectual property	0.0	
Final competitive advantage	0.0		Final intellectual property	0.0	
Initial supply chain efficiency	0.0		Initial manufacturing cost	0.0	
Final supply chain efficiency	0.0		Final manufacturing cost	0.0	
Initial distribution channel	0.0		Initial retail price	0.0	
Final distribution channel	0.0		Final retail price	0.0	
Initial logistics network	0.0		Initial shipping cost	0.0	
Final logistics network	0.0		Final shipping cost	0.0	
Initial warehouse capacity	0.0		Initial inventory level	0.0	
Final warehouse capacity	0.0		Final inventory level	0.0	
Initial transportation mode	0.0		Initial delivery time	0.0	
Final transportation mode	0.0		Final delivery time	0.0	
Initial packaging design	0.0		Initial labeling design	0.0	
Final packaging design	0.0		Final labeling design	0.0	
Initial marketing strategy	0.0		Initial sales strategy	0.0	
Final marketing strategy	0.0		Final sales strategy	0.0	
Initial distribution strategy	0.0		Initial pricing strategy	0.0	
Final distribution strategy	0.0		Final pricing strategy	0.0	
Initial supply chain strategy	0.0		Initial manufacturing strategy	0.0	
Final supply chain strategy	0.0		Final manufacturing strategy	0.0	
Initial distribution channel strategy	0.0		Initial shipping strategy	0.0	
Final distribution channel strategy	0.0		Final shipping strategy	0.0	
Initial logistics network strategy	0.0		Initial warehouse strategy	0.0	
Final logistics network strategy	0.0		Final warehouse strategy	0.0	
Initial transportation mode strategy	0.0		Initial packaging strategy	0.0	
Final transportation mode strategy	0.0		Final packaging strategy	0.0	
Initial packaging design strategy	0.0		Initial labeling strategy	0.0	
Final packaging design strategy	0.0		Final labeling strategy	0.0	
Initial marketing strategy	0.0		Initial sales strategy	0.0	
Final marketing strategy	0.0		Final sales strategy	0.0	
Initial distribution strategy	0.0		Initial pricing strategy	0.0	
Final distribution strategy	0.0		Final pricing strategy	0.0	
Initial supply chain strategy	0.0		Initial manufacturing strategy	0.0	
Final supply chain strategy	0.0		Final manufacturing strategy	0.0	
Initial distribution channel strategy	0.0		Initial shipping strategy	0.0	
Final distribution channel strategy	0.0		Final shipping strategy	0.0	
Initial logistics network strategy	0.0		Initial warehouse strategy	0.0	
Final logistics network strategy	0.0		Final warehouse strategy	0.0	
Initial transportation mode strategy	0.0		Initial packaging strategy	0.0	
Final transportation mode strategy	0.0		Final packaging strategy	0.0	
Initial packaging design strategy	0.0		Initial labeling strategy	0.0	
Final packaging design strategy	0.0		Final labeling strategy	0.0	

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modifications would be obvious to those skilled in the art and should not limit the scope of applicant's claimed invention. Unless specifically stated otherwise in the prosecution of any claim (appended hereto, or subsequently amended or added by the applicant), the applicant does not intend to restrict any of the claims to any specific structure set forth within the

5 examples by invoking 35 U.S.C. §112, Paragraph 6. Rather, the examples set forth herein are for illustration only, and encompass only a small number of embodiments within the scope and spirit of the present invention.

## **CLAIMS**

### **WHAT IS CLAIMED IS:**

1. An apparatus for concealing encoding unique identifiers on products comprising:
  - directing a plurality of high energy electromagnetic waves at material comprising the product such that the convergence point of the waves is within the material;
  - altering the convergence point of said high energy electromagnetic waves such that the three-dimensional structure of material within the product is disrupted such that said unique identifier is formed.
2. The apparatus of claim 1 wherein the encoding is performed on material which is in a molten or semi-molten stage.
3. An apparatus for reading said encoding of claim 1 and comparing the same to information contained in a database comprising:
  - a scanning device capable of discerning the internal contour of materials and reading an internal encodation;
  - a computer database relating the internal encodation with information pertaining to the purchaser of a good or the good's manufacture or source of origin;
  - a processing device for correlating the information in the computer database with internal encodation discerned by said scanning device.

4. A method of identifying the owner of a good, or the good's manufacture or source of origin, comprising:

encoding a unique identifier on a product;

placing a visible electronically-readable package identifier correlatable with, or identical to, said unique identifier on said product;

inputting said visible electronically-readable package identifier with information pertaining to the purchaser of the product, the good's manufacture or source of origin;

maintaining a database correlating said unique identifier with said information pertaining to the purchaser of the product, the good's manufacture or source of origin;

reading said unique product identifier; and

retrieving information pertaining to the purchaser of the product, the good's manufacture or source of origin from said database by means of providing the unique product identifier.

5. The method of claim 4 wherein said product encodation is concealed.

6. The method of claim 4 wherein said visible electronically-readable package identifier is input by electronic means.

9. The method of claim 6 wherein said information pertaining to the purchaser of the product, the good's manufacture or source of origin is input by electronic means.

## 1

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**EXPRESS MAIL LABEL NO.: EJ238216510US**  
**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

<b>APPLICANT:</b>	<i>S. MOORE</i> (Tel.: 203-426-9214)	<b>ART UNIT:</b>	2514
<b>APPL. SER. NO.:</b>	<i>C.I.P. OF:</i> <i>08/581,804</i>	<b>EXAMINER:</b>	<i>Tremblay, M.</i> (Tel.: 703-305-5176) (Fax: 703-308-7723)
<b>FILING DATE:</b>	<i>02 JANUARY 1996</i>	<b>DOCKET NO.:</b>	<i>122995-43-34.2</i>
<b>TITLE:</b>	<i>Method and Apparatus for Purchased Product Security</i>		

**CERTIFICATE OF MAILING**

I hereby certify that this paper (along with any referred to as being deposited) was deposited with the United States Postal Service on the date shown with sufficient postage as EXPRESS MAIL in an envelope addressed to:

BOX: PATENT APPLICATION; ASSISTANT COMMISSIONER OF PATENTS,  
WASHINGTON, D.C. 20231

June 25, 1999

Date of Mailing

STEVEN J. MOORE

(Type or Print Name of Mailer)

*Steven J. Moore*  
(Signature of Mailer)

ATTN: DRAWING PROCESSING BRANCH  
Assistant Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

**TRANSMITTAL LETTER TO OFFICIAL DRAFTSPERSON**

In conformance with 37 C.F.R. 1.84 and 1.152, Applicant herewith attaches Figures 1 - 8 (8 Drawing Sheets) believed to be in formal. Applicant respectfully requests that the attached drawings be substituted for those informal drawings transmitted with the CIP Application, submitted concurrent herewith.

Sincerely,

*Steven J. Moore*  
Steven J. Moore  
Applicant

Date: JUNE 25, 1999

FIG. 1

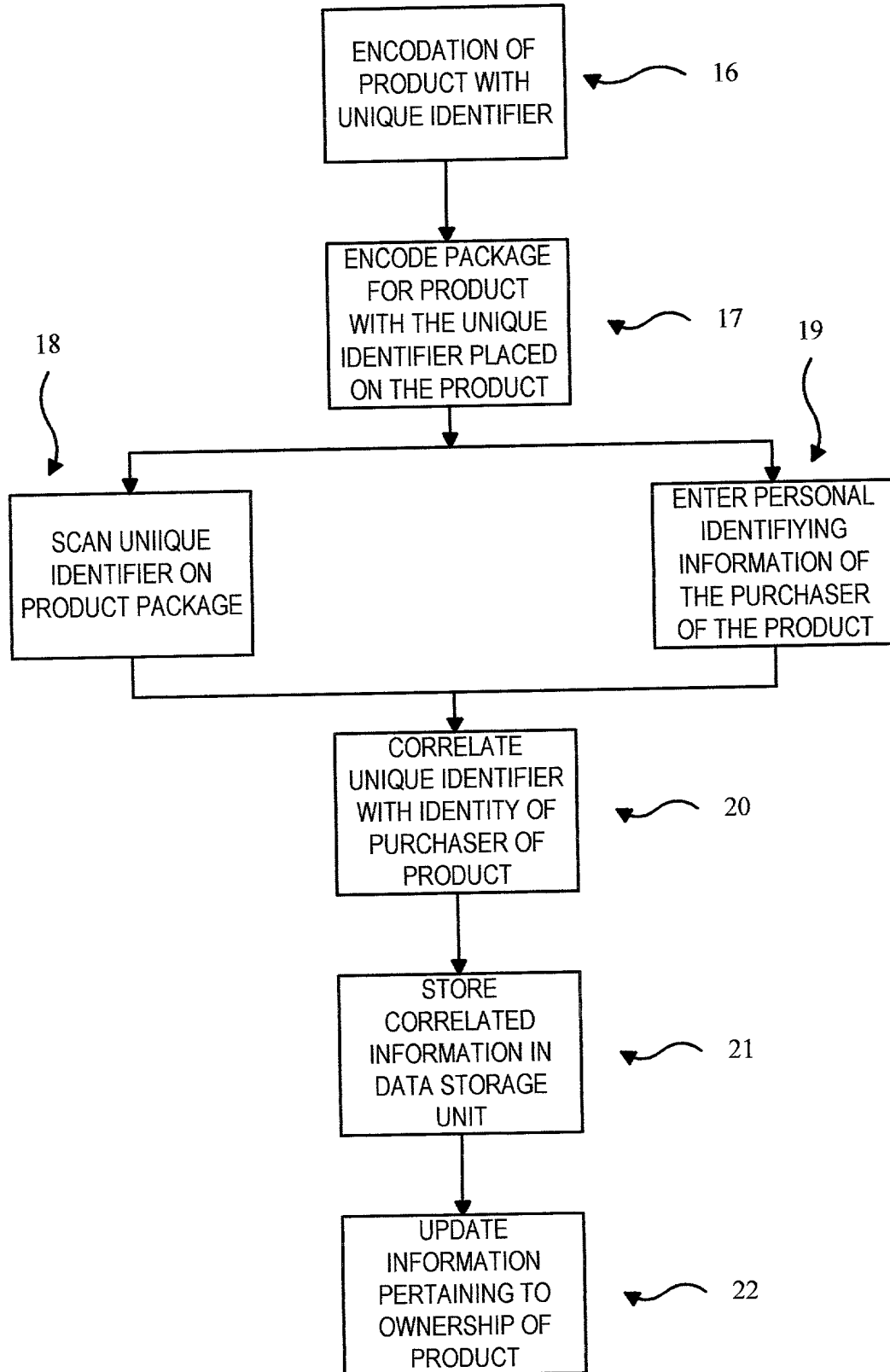


FIG. 2

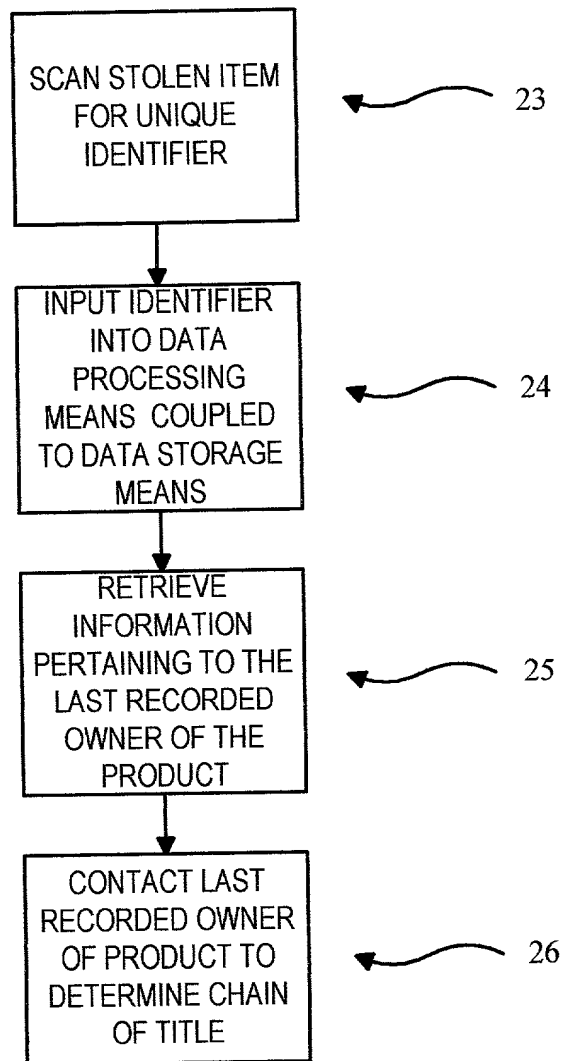


FIG. 3



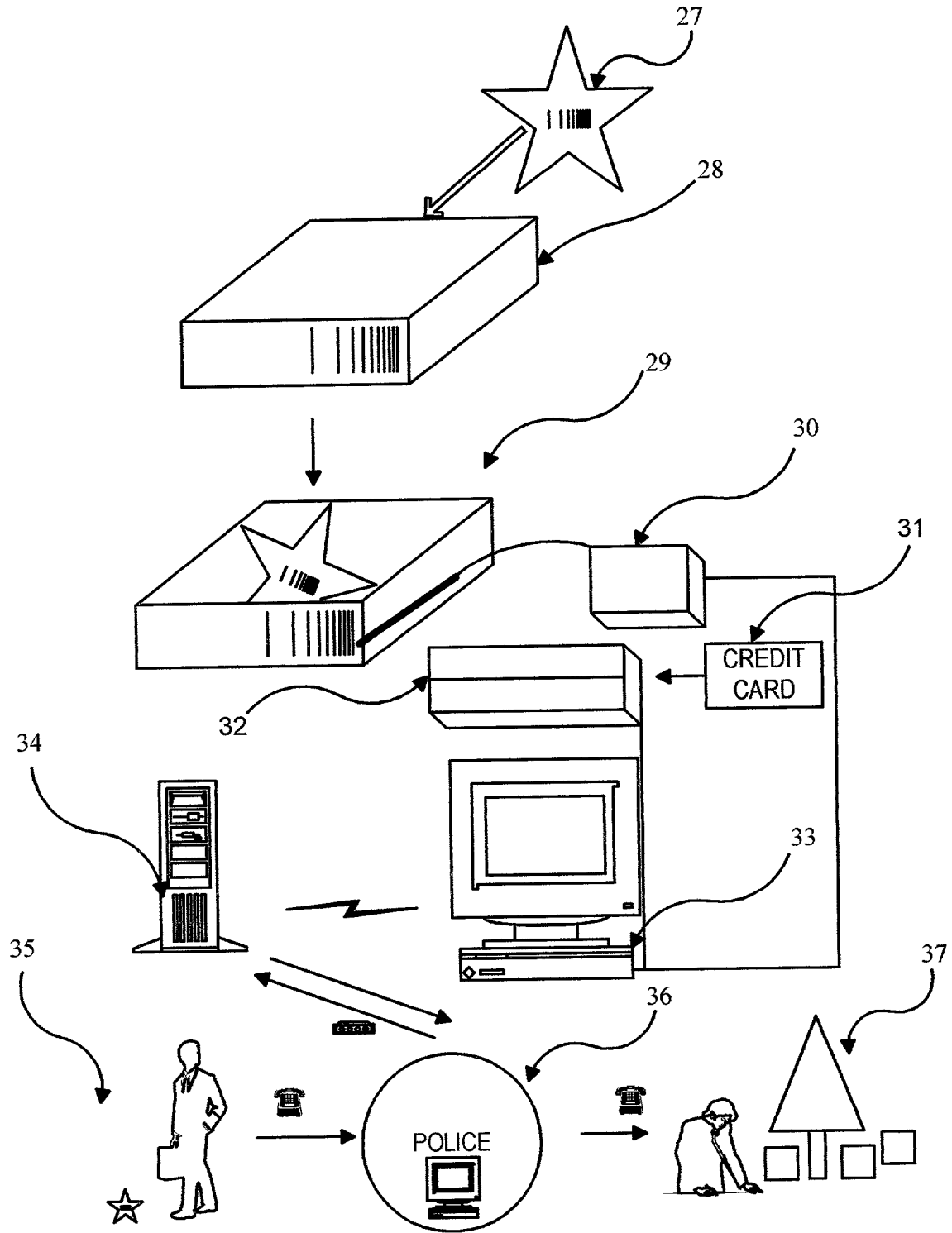


FIG. 4

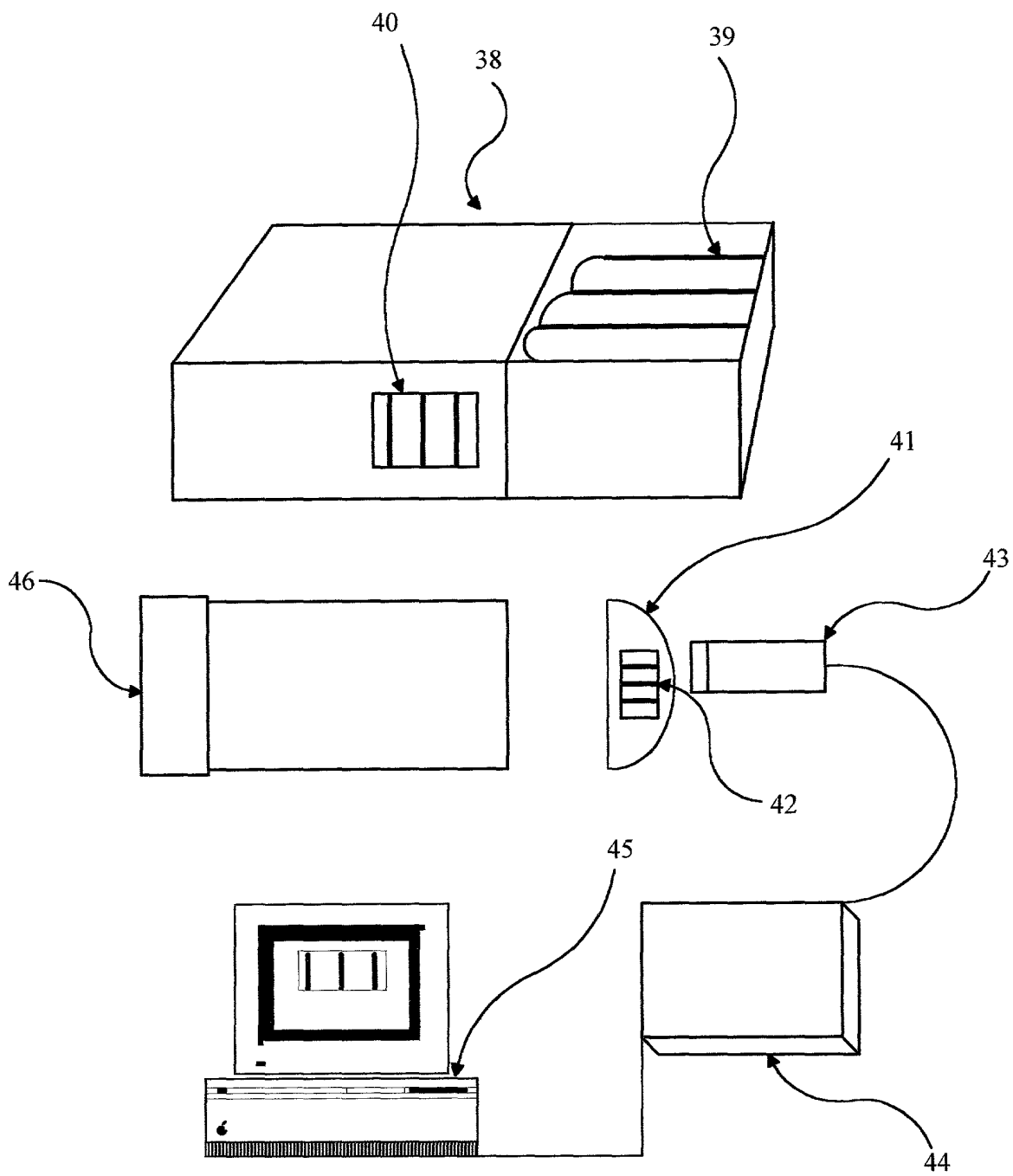


FIG. 5

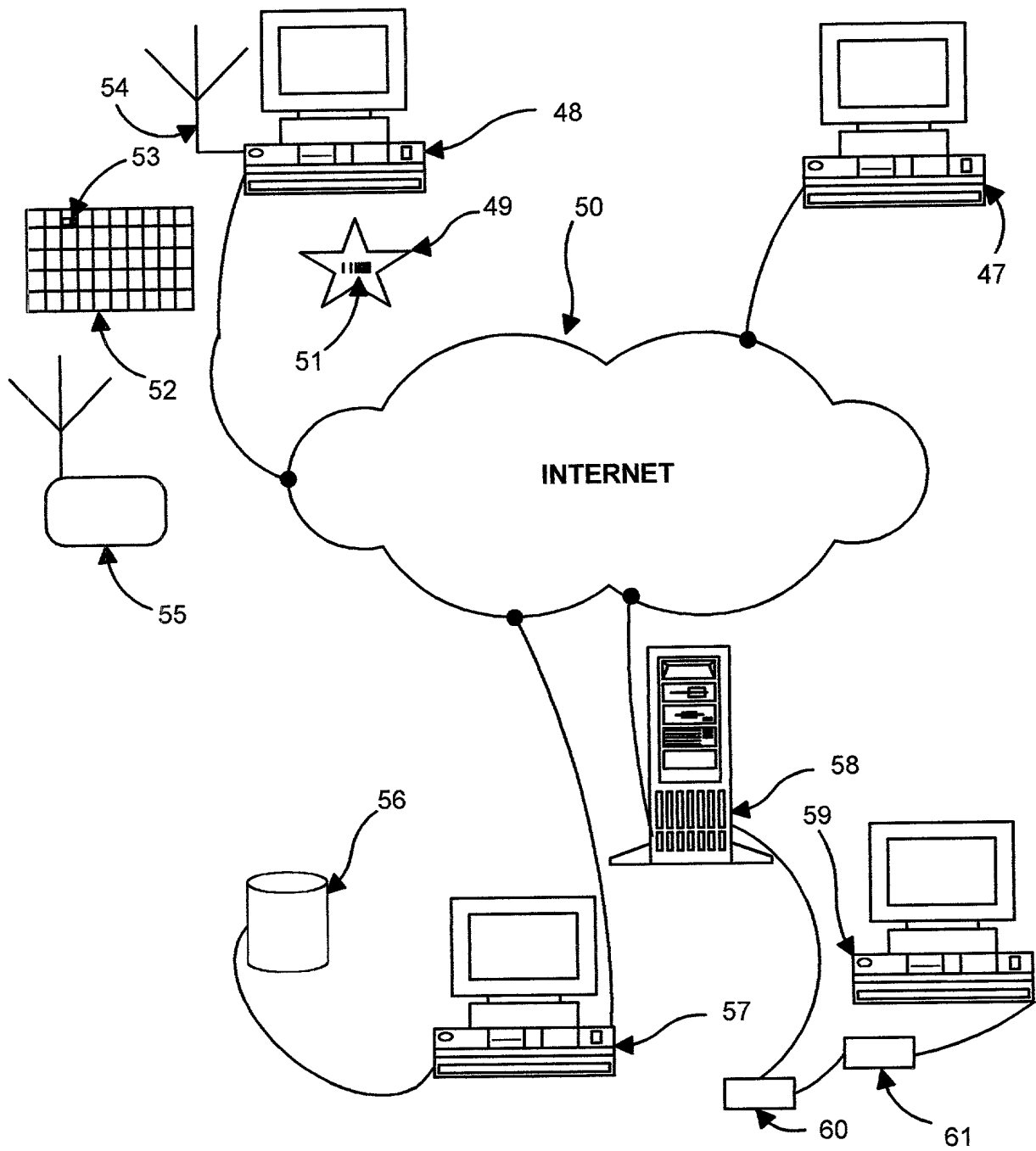


FIG. 6

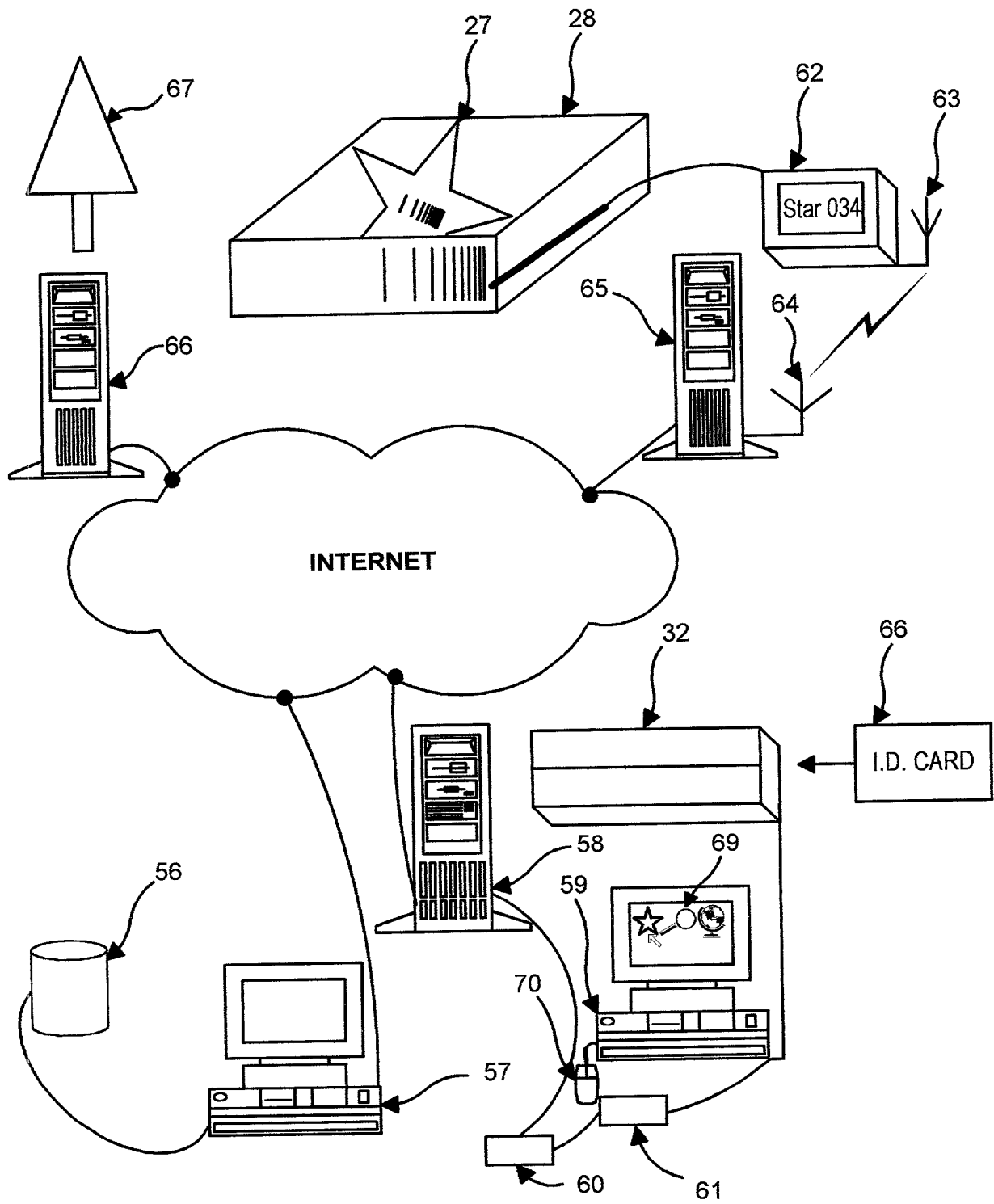


FIG. 7



FIG. 8

EXPRESS MAIL LABEL NO.: EJ238216510USIN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	S. MOORE (Tel.: 203-426-9214)	ART UNIT:	2514
APPLICATION SERIAL NO.:	Continuation-In-Part filing of U.S. Pat. Appl. No. 08/581,804	EXAMINER:	Mark Tremblay (Tel.: 703-305-5176) (Fax: 703-308-7723)
FILING DATE:	02 JANUARY 1996	DOCKET NO.:	122995-43-34.2
TITLE:	Method and Apparatus for Purchased Product Security		

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any referred to as being deposited) was deposited with the United States Postal Service on the date shown with sufficient postage as EXPRESS MAIL in an envelope addressed to:

Box: Patent Application; Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231.

JUNE 25, 1999  
Date

STEVEN J. MOORE  
(Type or print Name of person mailing paper or fee)  
Steven J. Moore  
(Signature of person mailing paper or fee)

COMBINED DECLARATION AND  
POWER OF ATTORNEY

(Original, Design, National Stage of PCT or CIP Application)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name, I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD AND APPARATUS FOR PURCHASED PRODUCT SECURITY

the specification of which: (complete (a), (b) or (c) for type of application)

Regular or Design Application

- (a) X is attached hereto.  
(b) \_\_\_\_\_ was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable).

**PCT Filed Application Entering National Stage**

- (c) \_\_\_ was described and claimed in International Application No. .... filed on .....  
and as amended on ..... (if any).

**Acknowledgement of Review of Papers and Duty of Candor**

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations. § 1.56(a).

\_\_\_ In compliance with this duty there is attached an information disclosure statement. 37 CFR 1.97.

**Priority Claim**

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

(complete (d) or (e))

- (d) ☒ no such applications have been filed.

- (e) \_\_\_ such applications have been filed as follows:

EARLIEST FOREIGN APPLICATION(S), IF ANY FILED WITHIN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION				
COUNTRY	APPLICATION NO.	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)	PRIORITY CLAIMED
				___ YES ___ NO
				___ YES ___ NO
				___ YES ___ NO
ALL FOREIGN APPLICATION(S), IF ANY FILED MORE THAN 12 MONTHS (6 MONTHS FOR DESIGN) PRIOR TO SAID APPLICATION				

**CONTINUATION-IN-PART**

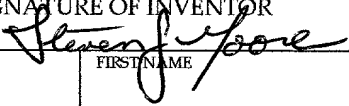
(complete this part only if this is a continuation-in-part application)

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

**08/581,804**  
(Application Ser. No.)

**02 JANUARY 1996**  
(Filing Date)

**PENDING**  
(Status - Patented,  
Pending, Abandoned)

FULL NAME OF SOLE OR FIRST INVENTOR	LAST NAME <b>MOORE</b>		FIRST NAME <b>STEVEN</b>		MIDDLE NAME <b>JEROME</b>
RESIDENCE & CITIZENSHIP	CITY <b>NEWTOWN</b>		STATE OR FOREIGN <b>CT</b>		COUNTRY OF CITIZENSHIP <b>U.S.A.</b>
POST OFFICE ADDRESS	POST OFFICE ADDRESS <b>58 BUTTERFIELD ROAD</b>		CITY <b>NEWTOWN</b>	STATE OR CNTRY/ZIP <b>CT 06470</b>	
DATE <b>JUNE 25, 1999</b>		SIGNATURE OF INVENTOR 			
FULL NAME OF SECOND JOINT INVENTOR, IF ANY	LAST NAME		FIRST NAME		MIDDLE NAME
RESIDENCE & CITIZENSHIP	CITY		STATE OR FOREIGN COUNTRY		COUNTRY OF CITIZENSHIP
POST OFFICE ADDRESS	POST OFFICE ADDRESS		CITY	STATE OR COUNTRY/ZIP	
DATE		SIGNATURE OF INVENTOR			
FULL NAME OF THIRD JOINT INVENTOR, IF ANY	LAST NAME		FIRST NAME		MIDDLE NAME
RESIDENCE & CITIZENSHIP	CITY		STATE OR FOREIGN COUNTRY		COUNTRY OF CITIZENSHIP
POST OFFICE ADDRESS	POST OFFICE ADDRESS		CITY	STATE OR COUNTRY/ZIP	
DATE		SIGNATURE OF INVENTOR			



Check proper box(es) for any added page(s) forming a part of this declaration.

- ☐ Signature for fourth and subsequent joint inventors. Number of pages added \_\_\_\_\_.
- ☐ Signature by administrator(trix), executor(trix) or legal representative for deceased or incapacitated inventor. Number of pages added \_\_\_\_\_.
- ☐ Signature for inventor who refuses to sign or cannot be reached by person authorized under 37 CFR 1.47. Number of pages added \_\_\_\_\_.